TOSHIBA

FILE NO. 020-200219

SERVICE MANUAL

COLOR TELEVISION

N2NS Chassis

32AFX62, 36AFX62

(TAC0220) *(TAC0221)*

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CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a 120V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.

   Refer to table-1 for high voltage (A), (B).
   (See SETTING & ADJUSTING DATA on page 14)

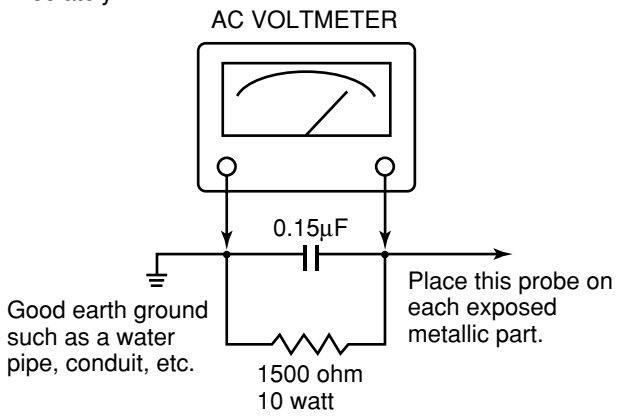
   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. This receiver is equipped with a Fail Safe (FS) circuit which prevents the receiver from producing an excessively high voltage even if the B+ voltage increases abnormally. Each time the receiver is serviced, the FS circuit must be checked to determine that the circuit is properly functioning, following the FS CIRCUIT CHECK procedure in this manual.
3. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
4. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation Transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
4. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, screwheads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner:

   Connect a 1500 ohm 10 watt resistor, paralleled by a 0.15 μF, AC type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and 0.15 μF capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.3 volts rms. This corresponds to 0.2 milliamp. AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.


AC VOLTMETER
0.15μF
Good earth ground such as a water pipe, conduit, etc.
Place this probe on each exposed metallic part.
1500 ohm
10 watt

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

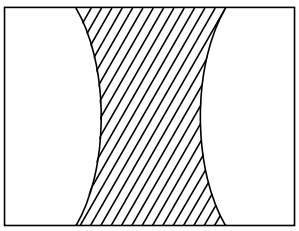
Note: 1. The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.
2. Mounting position of the purity magnet assembly should fit to same position as old one because slightly difference to the position depend on a kind of tube.

***** There are no adjustment of purity and convergence in some picture tube (Unified with purity magnet)

COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

1. Evenly degauss the entire screen.
2. Set the CONTRAST and BRIGHTNESS Controls to the maximum.
3. Display built-in green raster using the TEST SIGNAL SELECTION function.
4. Loosen the clamp screw holding the deflection yoke (and remove the rubber Wedges).
5. Slide the yoke forward or backward to provide vertical green belt (zone) in the picture screen.
6. Rotate and spread the tabs of the purity magnet (See figure 4.) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, center the raster vertically by adjusting the magnet as shown below.



Green Belt

7. Move the yoke slowly forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster.
9. Put four wedges into the space between the picture tube and the yoke to hold the yoke in the adjusted position. (See figure 2.)
   Do not tilt the yoke by excessive insertion of the wedge.
10. Remove cover paper of wedge and stick wedges on the tube to fix the yoke in the adjusted position.
    Fix the wedges with glass cloth tapes.

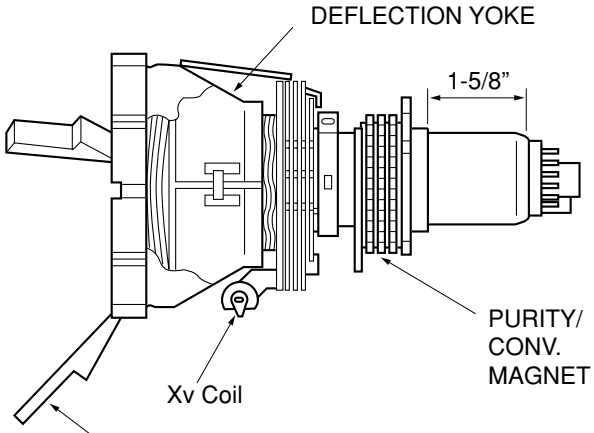


Figure 1.

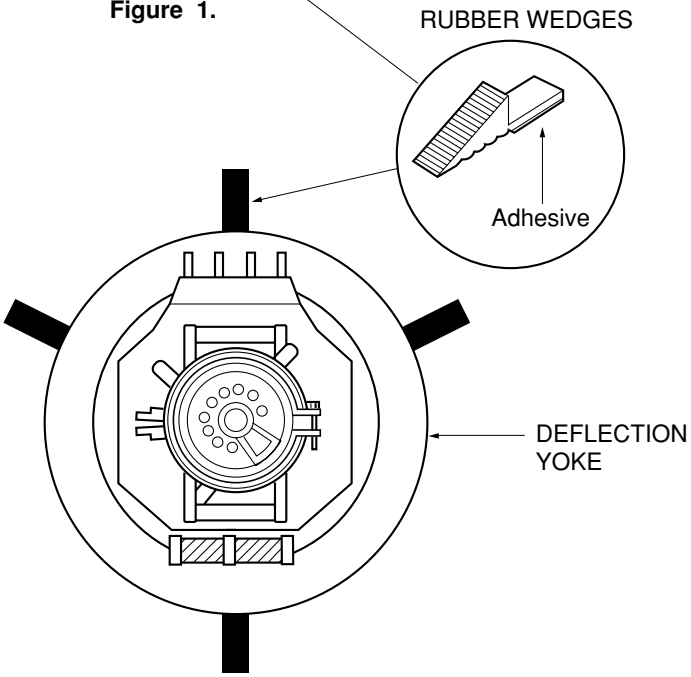


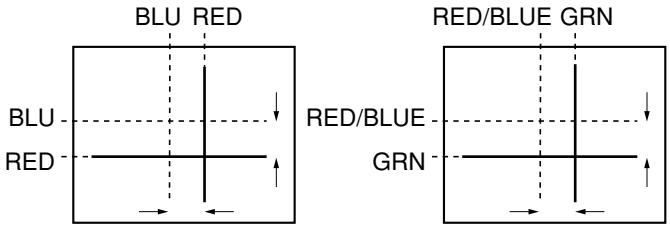
Figure 2.

CONVERGENCE ADJUSTMENTS

NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

■ **CENTER CONVERGENCE ADJUSTMENT**

1. Display built-in cross-dot pattern using the TEST SIGNAL SELECTION function.
2. Adjust the BRIGHTNESS and CONTRAST Controls for well defined pattern.
3. Loosen the tightening ring and adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 4.) and superimpose red and blue vertical lines in the center area of the picture screen. (See figure 3.)
4. Turn the both tabs at the same time keeping the constant angle to superimpose red and blue horizontal lines at the centre of the screen. (See figure 3.)
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line with green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole magnets interact and make dot movement complex.
7. After completing the "CENTER CONVERGENCE ADJUSTMENT" tighten the tightening ring to fix the magnets.



Center Convergence by Convergence Magnets

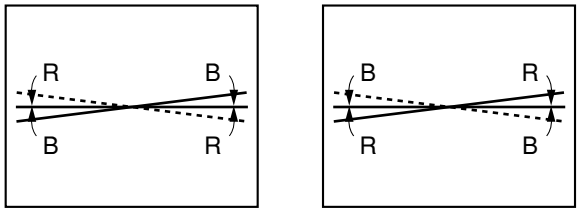
Figure 3.

■ **Xv COIL ADJUSTMENT**

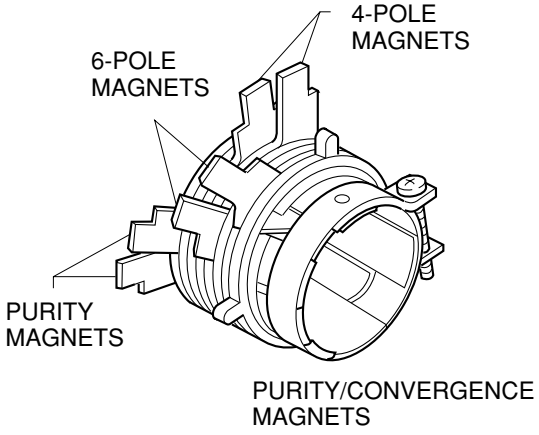
Adjust the Xv coil (on the deflection yoke) to correct misconvergence at both sides on screen.

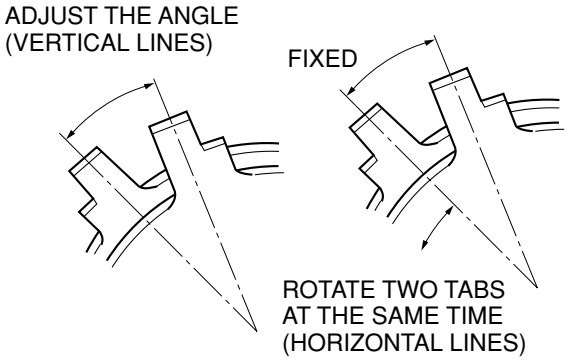
Use a hexagonal tip stick (plastic) to adjust the core of coil.

Clockwise Adjustment **Counterclockwise Adjustment**



X_V Cross Pattern View





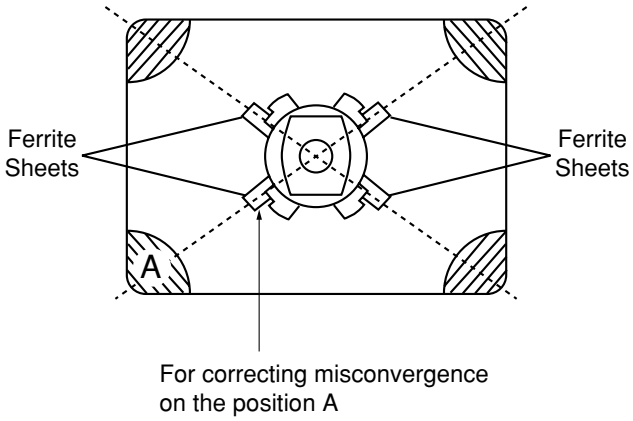
ADJUSTMENT OF MAGNETS

Figure 4.

■ **SCREEN-CORNER CONVERGENCE**

When the misconvergence is still evident on corners even though the above adjustment is done, use the ferrite sheet (Part No. 23993622) to correct misconvergence.

1. Put ferrite sheets into the space under the yoke. Decide such position that misconvergence becomes minimum, watching picture screen. (See figure below.)
2. Remove cover paper of ferrite sheet to stick it in the place on the tube. Put adhesive tapes on ferrite sheets to fix.



WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF SERVICE MANUAL.

SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.

COLOR PURITY ADUSTMENT

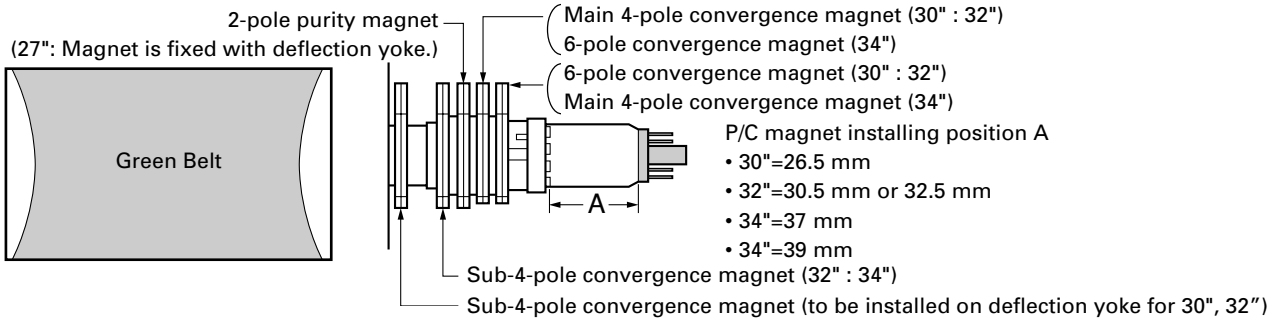
(1) Let the screen face in the installing direction or toward the east (when it is to be moved), bring up the service mode screen after demagnetizing (front, left, right, and top) with the degaussing coil, receive white signals by pressing the [TV/VIDEO] button, and then the receiver should be operated for more than 40 minutes.

(2) Perform rough adjustment of the central convergence with the P/C magnet according to the adjustment item.

(3) Receive built-in green signals, loosen set screws on the deflection yoke, remove rubber wedges, and shift the deflection yoke to toward front.

(4) Move alternately the two 2-pole magnets of the P/C magnets so that the green raster can come to the center of the screen.

Figure 1.

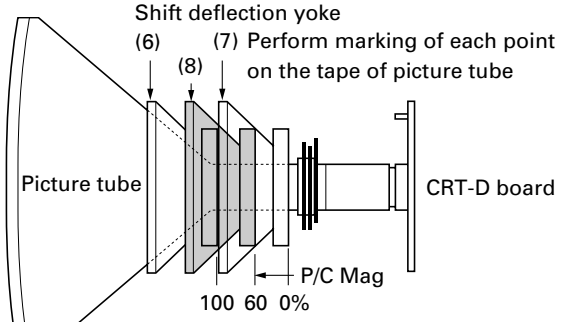

2-pole purity magnet
(27": Magnet is fixed with deflection yoke.)
Green Belt
Main 4-pole convergence magnet (30" : 32")
6-pole convergence magnet (34")
6-pole convergence magnet (30" : 32")
Main 4-pole convergence magnet (34")
A
P/C magnet installing position A
• 30"=26.5 mm
• 32"=30.5 mm or 32.5 mm
• 34"=37 mm
• 34"=39 mm
Sub-4-pole convergence magnet (32" : 34")
Sub-4-pole convergence magnet (to be installed on deflection yoke for 30", 32")

(5) Receive built-in red and blue signals, check that there is no inclination of the single color raster toward one side, and if each color tilts to a great extent, make adjustment with the 2-pole magnet so that the 3 colors will come to the center evenly.

(6) Receive the green raster, shift the deflection yoke from a foremost position (hitting against the picture tube) to a backward position horizontally, stop the deflection yoke at a position where it begins to become a green raster, and perform accurate marking on the picture tube.

(7) Shift the deflection yoke further backward, and perform accurate marking at a position where the green raster begins to being luck.

(8) Fix the deflection yoke at a position 60% forward within the range marked in items (6) and (7) above.



Fix the deflection yoke at a position 60% forward from a point between (6) and (7)

CONVERGENCE ADJUSTMENTS

* Adjust the convergence magnet to get vest convergence in the the order to (1) ~ (5).

■ CENTER CONVERGENCE:

(1) Receive the white crosshatch or dot pattern from the service signal generator.

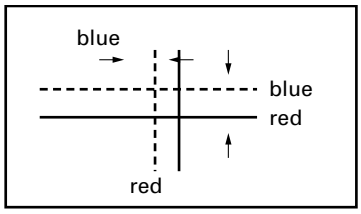
(2) Use the 2 pieces of main 4-pole magnets of P/C magnets, change the open angle, and align the red and blue vertical lines on the screen center.

(3) Freeze the open angle of the main 4-pole magnets, turn them simultaneously, and align the horizontal lines.

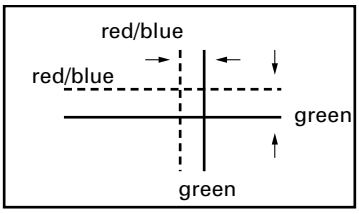
(4) Take the same steps for items (2) and (3) above and align red/blue with green on the screen center using two 6-pole magnets.

(5) Adjust the sub-4-pole magnets only in case there is any deviation of Xv bow-shaped convergence. (To be usually set at the initial position)

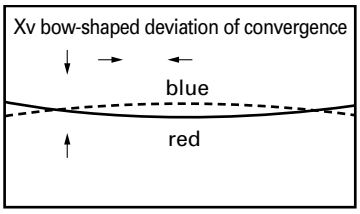
Align both sides with the sub-4-pole magnets and minimize the deviation of blue and red with the main 4-pole magnets.



Main 4-pole magnet



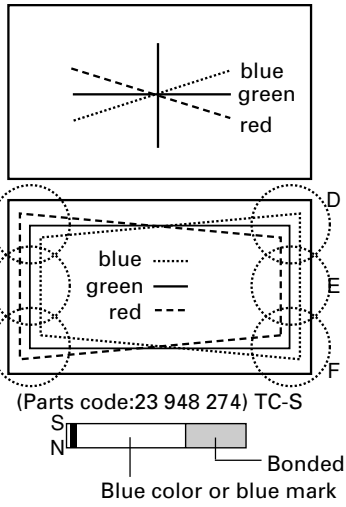
6-pole magnet

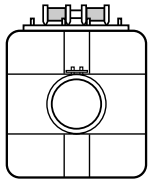


Sub-4-pole magnet

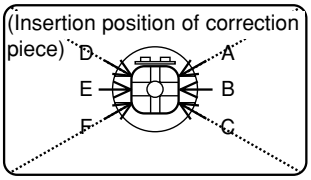
■ CIRCUMFERENCE CONVERGENCE:

* Perform correction in the following manner.

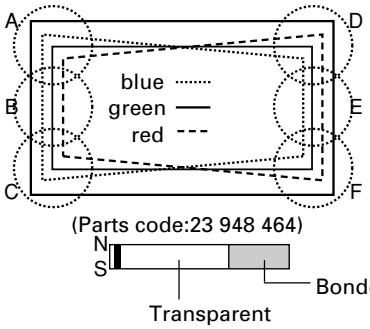




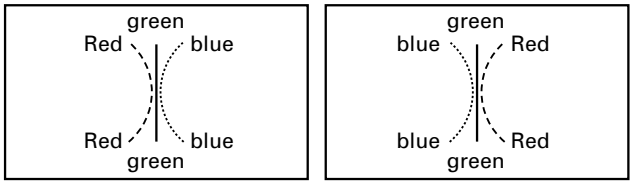
• Adjust coils and minimize deviation
(The 27" unit has coils underneath it)



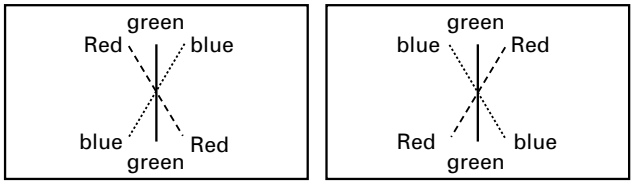
*Insert the correction piece between the picture tube and the deflection yoke.



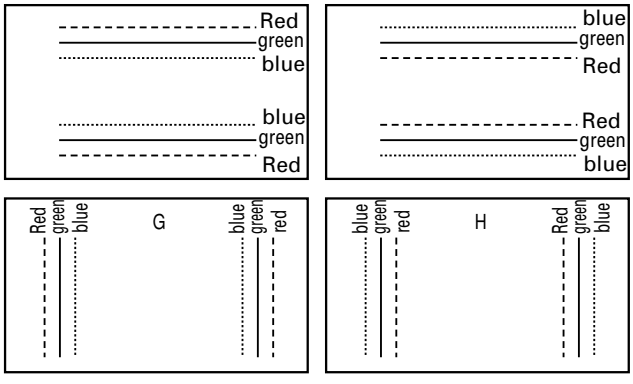
Adjust VR 1 and minimize the deviation of YH. *Only 27", 30" and 32".



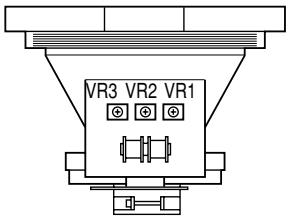
Adjust VR 2 (YHC) and minimize the deviation of YH.



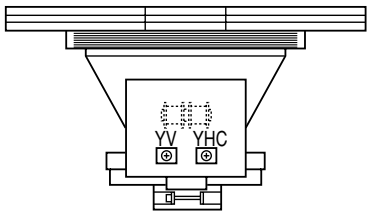
Adjust VR 3 (YV) and minimize the deviation of YV.



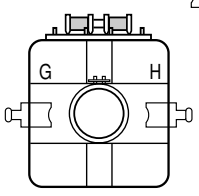
■ 30", 27", 32"



■ 34"



27" (Part No. 23 947 371)
32", 30" (Part No. 23 947 121)
34" (Part No. 23 993 080)



Perform correction by inserting the correction piece into the clearance of terminal board coils of the deflection yoke.

Note:

Perform insertion by turning the metal side to the terminal board side of the deflection yoke.

SERVICE MODE

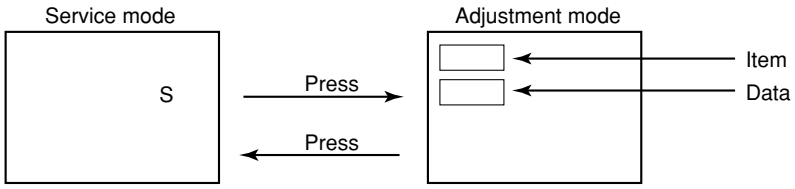
1. ENTERING TO SERVICE MODE

1) Press MUTE button once on Remote Control.
2) Press MUTE button again to keep pressing.
3) While pressing the MUTE button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

A single horizontal line ON/OFF:	TV (ANT)/VIDEO button (on TV)
Test signal selection :	TV (ANT)/VIDEO button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume ▲/▼ (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02, QA04) :	RECALL+Channel (▲) button on TV
Initialization of the self diagnostic data:	RECALL+Channel (▼) button on TV

“RCUT” selection :	1 button
“GCUT” selection :	2 button
“BCUT” selection :	3 button
“CNTX” selection :	4 button
“COLC” selection :	5 button
“TNTC” selection :	6 button
Test audio signal ON/OFF (1kHz) :	8 button
Self diagnostic display ON/OFF :	9 button

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 14)

5. ADJUSTING THE DATA

1) Pressing of VOLUME ▲ or ▼ button will cahnge the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02 AND QA04

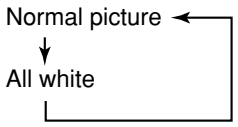
After replacing QA02 and QA04, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the RECALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 and QA04 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
   Perform “Programming Channel Memory” on the owner's manual.

CAUTION: Never attempt to initialize the data unless QA02, QA04 has been replaced.

7. TEST SIGNAL SELECTION

1) Every pressing of TV/VIDEO button on the Remote Control in the Service mode changes the built-in test patterns on screen in the following order.



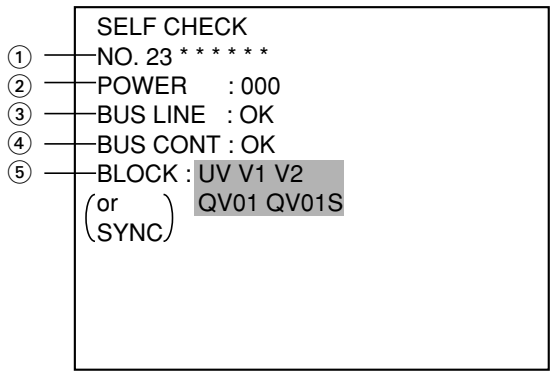
Signals	Picture
• All White	

2) Press “8” button while any built-in test pattern to on the screen to output the 1 kHz sound. Press the button again to cut off the sound.

Note: If the video cable is connected to the VIDEO1 INPUT jack, the built-in pattern signals are not displayed.

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.



① Part number of microprocessor (QA01)
② Operation number of protection circuit (current limiter) . . . . “000” is normal.
③ BUS line check
- “OK” ..... Normal
- “SCL-GND” or “NG” ..... SCL-GND short circuit
- “SDA-GND” or “NG” ..... SDA-GND short circuit
- “SCL-SDA” or “NG” ..... SCL-SDA short circuit

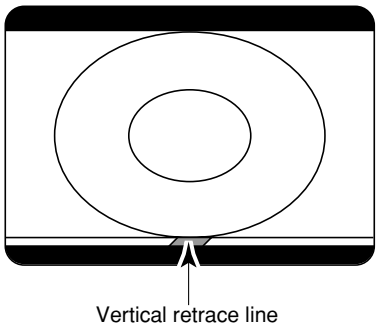
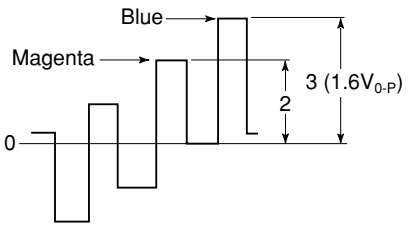
④ BUS line ACK (acknowledge) check
- “OK” ..... Normal
- Display of Location Number . . . . NG
  (Display example)
  “QA02 NG”, “H001 NG”, “Q501 NG” etc.
- Note: The indication of failure place is only one place though failure places are plural. When repair of a failure place finishes, the next failure place is indicated. (The order of priority of indication is left side.)

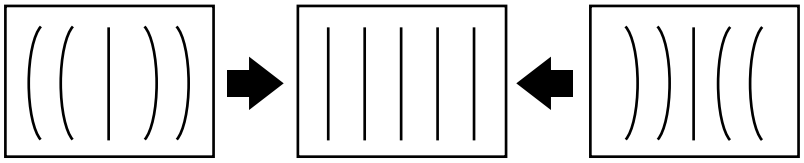
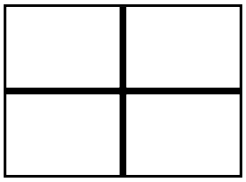
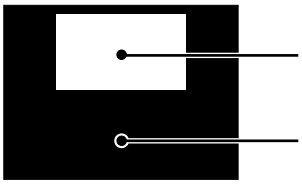
⑤ Sync. signal check
- Green display ..... Normal
- Cyan display ..... No check
- Red display ..... NG

UV ..... TV mode
V1 ..... VIDEO 1 mode
V2 ..... VIDEO 2 mode

***** The items marked with ▒ are not usable to display in the SELF DIAGNOSTIC FUNCTION for some model.

ELECTRICAL ADJUSTMENTS

ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ	1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS (BRTC)	1. Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT). 2. Adjust the CONTRAST control to the minimum. 3. Call up the adjustment mode display, then select the item **BRTC**. 4. Press the VOLUME ▲ or ▼ button so the belt of vertical retrace line just disappear. 5. Adjust the CONTRAST control for the desired contrast. 6. Perform the HEIGHT adjustment. 
SUB-COLOR (SCOL) SUB-TINT (TNTC)	1. Receive color-bar signal from color-bar generator. 2. Press the RESET button. 3. Connect oscilloscope to TP501 on SIGNAL board. 4. Adjust the CONTRAST control to the minimum. 5. Call up the adjustment mode display, then select the item **TNTC**. 6. Adjust the SUB-TINT by pressing the VOLUME ▲ or ▼ button to obtain a blue bar to magenta bar ratio of 3:2 as shown.  7. Press the RESET button. 8. Select the item **SCOL**. 9. Adjust the SUB-COLOR by pressing the VOLUME ▲ or ▼ button to achieve 1.6$V_{0\text{-}p}$ of a blue bar on scope. 10. Check the picture with off-air signal.
WIDTH (WID)	1. Call up the adjustment mode display, then select the item **WID**. 2. Press the VOLUME ▲ or ▼ button to get the picture so the left and right edges of raster begins to lack. 3. Press the VOLUME ▲ or ▼ button to advance the data by 7 steps. Note : Check the horizontal picture position is correct.

ITEM	ADJUSTMENT PROCEDURE
E-W PARABOLA (DPC) (PARA)	1. Call up the adjustment mode display, then select the item **PARA**. 2. Press the TV/VIDEO button on Remote until the cross-hatch pattern appears on the screen. 3. Press the VOLUME ▲ or ▼ button to make vertical lines straight as shown below. 
HORIZONTAL POSITION (HPOS) VERTICAL POSITION (VPOS)	1. Call up the adjustment mode display, then select the item **HPOS** or **VPOS**. 2. Press the TV/VIDEO button on Remote until the white cross-bar or black cross-bar pattern appears on the screen. 3. Adjust the HORIZONTAL and VERTICAL position alternately by pressing the VOLUME ▲ or ▼ button for proper picture position. 4. Check the picture with off-air signal. 
HEIGHT (HIT)	1. Call up the adjustment mode display, then select the item **HIT**. 2. Press the VOLUME ▲ or ▼ button to get the picture so the top of raster begins to lack. 3. Press the VOLUME ▲ button to advance the data by 9 steps. Note : Check the vertical picture position is correct.
WHITE BALANCE (RCUT) (GCUT) (BCUT) (GDRV) (BDRV)	1. Adjust the CONTRAST control to the center, and BRIGHTNESS control to the maximum. 2. Call up the adjustment mode display, and press the TV/VIDEO button on Remote until the white and black pattern appears on the screen. 3. Adjust the following items with the CHANNEL ▲/▼ and VOLUME ▲/▼ buttons. Item : RCUT ⟶ Data : 40H Item : GCUT ⟶ Data : 40H Item : BCUT ⟶ Data : 40H Item : GDRV ⟶ Data : 40H Item : BDRV ⟶ Data : 40H 4. Press the TV/VIDEO button on TV to display a single horizontal line on the screen. 5. Turn the SCREEN control (FBT) fully counterclockwise and gradually rotate clockwise until the first horizontal line appears slightly on the screen. 6. Press the TV/VIDEO button to display the normal picture. 7. Adjust the remaining two "?CUT" items (CHANNEL ▲/▼ → TV/VIDEO → VOLUME ▲/▼ in order) to obtain the slightly lighted horizontal line in the same levels of three (red, green, blue) colors. The line should be white if the adjustments are proper.  Bright area Adjust "GDRV" or "BDRV" to be white. Dark area Fine adjust "RCUT", "GCUT" or "BCUT" to be black.

CIRCUIT CHECKS

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

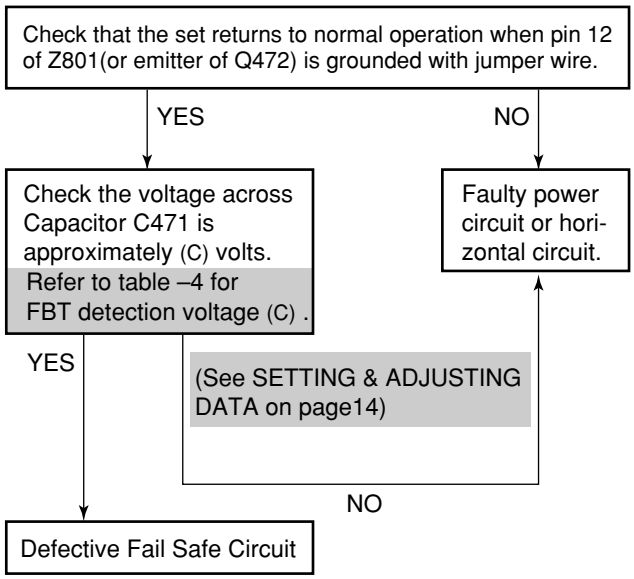
1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below (B) kV.
   Refer to table-1 for high voltage (B).
   (See SETTING & ADJUSTING DATA on page 14)
4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

FS CIRCUIT CHECK

The Fail Safe (FS) circuit check is indispensable for the final check in servicing. Checking should be done following the steps below.

1. Turn the receiver on and press the RESET button.
2. Temporarily short TP-(R) and TP-(X) with a jumper wire. Raster and sound will disappear.
3. The receiver must remain in this state even after removing the jumper wire. This is the evidence that the FS circuit is functioning properly.
4. To obtain a picture again, temporarily turn the receiver off and allow the FS circuit more than 5 seconds to reset. Then turn the power switch on to produce a normal picture.

Troubleshooting Guide for Fail Safe Circuit


Check that the set returns to normal operation when pin 12 of Z801(or emitter of Q472) is grounded with jumper wire.
YES
NO
Check the voltage across Capacitor C471 is approximately (C) volts.
Refer to table –4 for FBT detection voltage (C) .
Faulty power circuit or horizontal circuit.
YES
(See SETTING & ADJUSTING DATA on page14)
NO
Defective Fail Safe Circuit

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【 SAFETY INSTRUCTIONS 】

		32"	36"
HIGH VOLTAGE AT ZERO BEAM:	(A)	32.7 kV	32.7 kV
MAX HIGH VOLTAGE:	(B)	34.1 kV	34.1 kV

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUTOFF	40H	←
GCUT	G CUTOFF	40H	←
BCUT	B CUTOFF	40H	←
GDRV	G DRIVE	40H	←
BDRV	B DRIVE	40H	←
BRTC	BRIGHT CENT	80H	←
TNTC	TINT CENT	44H	←
SCOL	SUB-COLOR	05H	←
SCNT	SUB-CONTRAST	10H	←
HIT	HEIGHT	47H	39H
LIN	V-LINEARITY	13H	12H
VSC	V-S CORRECTION	31H	33H
VPS	V-SHIFT	04H	←
VCP	V-COMPENSATION	03H	02H
WID	PICTURE WIDTH	21H	20H
PARA	E-W PARABOLA	22H	1BH

Item	Name of adjustment	Preset	Data
CNR	E-W CORNER	11H	15H
TRAP	TRAPEZIUM	3EH	34H
HCP	H-CONMPENSATION	04H	01H
VFC	V-F CORRECTION	07H	0AH
HPOS	H-POSITION	16H	13H
VPOS	V-PHASE	03H	02H
BLKS	BLANKING START	—	←
BLKE	BLANKING END	—	←
GMPS	GMPS	00H	←
CPAR	CENTER PARA	55H	32H
PHUE	PIP TINT	46H	←
PCNT	PIP CONTRAST	12H	←
PCOL	PIP COLOR	19H	←
PYOF	PIP Y OFFSET	04H	09H
PIOF	PIP I OFFSET	1DH	←
PQOF	PIP Q OFFSET	1DH	←

Table-2

【 DESIGN MODE 】

ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment	PRESET	Data	Remarks
OPT1	OPTION 1	4AH	←	88H
OPT2	OPTION 2	05H	←	0DH
TVOP	MAIN TUNER for STOP SUB TUNIER for STOP Non-Signal Audio Mute (0: on 1: off)	00H	←	←

Table-3

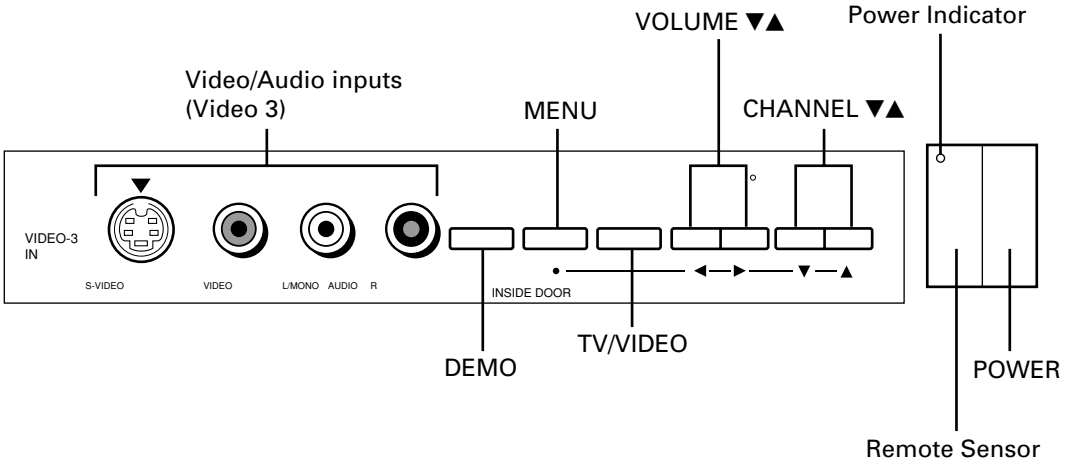
【 CIRCUIT CHECKS 】

FBT DETECTION VOLTAGE	(C)	18.9 V

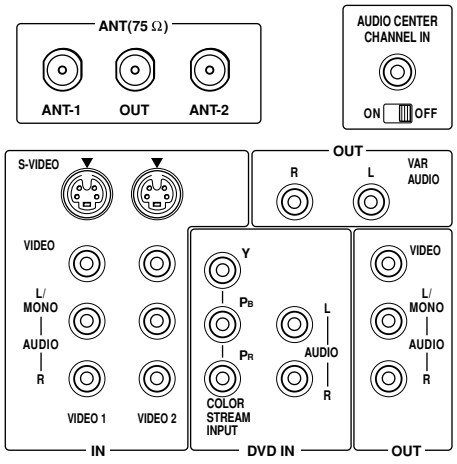
Table-4

LOCATION OF CONTROLS (Representative: 32AFX62)

TV Front



TV Rear



Remote Control

Power turns the TV on or off

SLEEP sets the TV to turn at a specific time

LIGHT The initial press of the LIGHT button causes two actions:

Channel Numbers (0–9, 100) allow direct access to channels

MODE cycles through the 6 device modes

FAVOURITE allows access to Multi-Window function

INFO allows access to Multi-Window function

MENU allows access to programming

ENTER sets programming menu information

▲▼◄► selects or adjusts programming menus

[FAV] ◄► selects your favourite channels

Volume ▲▼ adjusts the volume level

EXIT exits programming menus

Channel ▲▼ cycles through programmed channels

CH RTN returns to the last viewed channels

RECALL displays on-screen information

MUTE mutes the sound

INPUT selects video input source

PIP allows access to PIP functions

PIP turns the PIP on or off

PIP CH ▲▼ selects the PIP channels

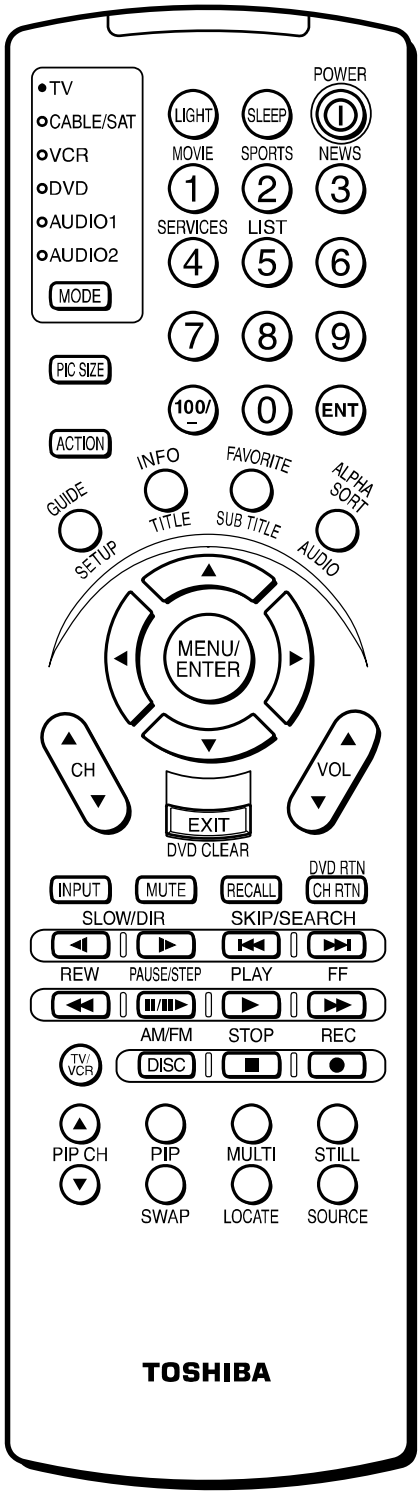
MULTI allows access to Multi-Windows function

STILL freezes the PIP

SOURCE selects the PIP source

LOCATE moves the PIP

SWAP switches the PIP and main pictures



PROGRAMMING CHANNEL MEMORY

The channel memory is the list of TV channel numbers your TV will stop on when you press the CHANNEL ▲ or ▼ button.
First, use the TV/CABLE and CH PROGRAM functions to preset all active channels in your area automatically.
If necessary, arrange the preset channels with the ADD/ERASE functions so that you can tune into only desired channels.
Note: If you utilize both ANT-1 and ANT-2 terminals for some model, perform programming channels for each input source.

TV/CABLE function

1 Press **MENU**, then press ► or ◄ until the SET UP menu appears.

2 Press ▼ (or ▲) until "TV/CABLE" is highlighted.

3 Press ► or ◄ to highlight either "TV" or "CABLE", whichever you use.

CH PROGRAM function

1 Select "CH PROGRAM" following steps 1 and 2 above.

2 Press ► or ◄ to start channel programming.
The TV will automatically cycle through all the TV or CABLE channels selected by the TV/CABLE function, and store active channels in the channel memory.

3 When channel programming is complete, you will see the message to the right.

4 Press **CHANNEL** ▲ or ▼ to make sure the channel programming has been done properly.

ADD/ERASE function

After performing the CH PROGRAM function, you can add or erase specific channels.

1 Select the channel you want to erase using the CHANNEL ▲ or ▼ button, or select the channel you want to add using the **Channel Number** buttons.

2 Press **MENU**, then press ► or ◄ until the SET UP menu appears.

3 Press ▼ (or ▲) until "ADD/ERASE" is highlighted.

4 Press ► or ◄ :
To erase the channel
Press the button until "Erase" is highlighted.

To add the channel
Press the button until "Add" is highlighted.

5 Repeat steps 1 to 4 for other channels.

You have now completed the channel programming.

Note: The CHANNEL ▼/▲ buttons on the TV function as the ▼/▲ buttons while a menu is on the screen.

* Please refer to owner's manual in detail.

CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with ∗mark is no longer available after the end of the production.*

Model : 32AFX62/36AFX62

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
CAPACITORS		
C102	24665221	ELECTROLYTIC, 10V 220UF M 3A
C105	24474102	CERAMIC, 50V B 1000PF K
C106	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C107	24666221	ELECTROLYTIC, 16V 220UF M 3A
C112	24665221	ELECTROLYTIC, 10V 220UF M 3A
C115	24474102	CERAMIC, 50V B 1000PF K
C117	24666221	ELECTROLYTIC, 16V 220UF M 3A
C151	24436102	CERAMIC DISC, 50V SL 1000PF J
C201	24794100	ELECTROLYTIC, 16V 10UF M
C203	24503041	PLASTIC FILM , 63V 0.1UF J
C204	24797010	ELECTROLYTIC, 50V 1UF M
C205	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
C206	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
C207	24436390	CERAMIC DISC, 50V SL 39PFJ
C208	24436390	CERAMIC DISC, 50V SL 39PFJ
C209	24436390	CERAMIC DISC, 50V SL 39PFJ
C212	24794100	ELECTROLYTIC, 16V 10UF M
C213	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C214	24794220	ELECTROLYTIC, 16V 22UF M
C220	24436680	CERAMIC DISC, 50V SL 68PF J
C260	24085967	ELECTROLYTIC, NONPOLAR, 16V 47UF M 11L
C303	24214471	CERAMIC DISC, 500V B 470PF K
C304	24693473	PLASTIC FILM, 100V 0.047UF J
C306	24795332	ELECTROLYTIC, 25V 3300UF M
C308	24669221	ELECTROLYTIC, 50V 220UF M 3A
C310	24073095	ELECTROLYTIC, 50V 2200UF M 3A
C312	24503037	MT PLA CAP 63V 0.047UF J
C313	24082057	PLASTIC FILM, 100V 220000PF J
C314	24793101	ELECTROLYTIC, 10V 100UF M
C315	24797229	ELECTROLYTIC, 50V 2.2UF M
C316	24212222	CERAMIC DISC, 50V B 2200PF K
C318	24073041	ELECTROLYTIC, 16V 470UF M 3A
C319	24591103	PLASTIC FILM, 50V 0.01UF J
C320	24669101	ELECTROLYTIC, 50V 100UF M 3A
C322	24617912	ELECTROLYTIC, 50V 2.2UF K 3A LI
C323	24539474	PLASTIC FILM, 50V 0.47UF J
C325	24591203	PLASTIC FILM, 50V 0.02UF J
C327	24073041	ELECTROLYTIC, 16V 470UF M 3A

Location No.	Parts No.	Description
C328	24591102	PLASTIC FILM, 50V 1000PF J
C352	24617915	ELECTROLYTIC, 50V 1UF K 3A LI
C361	24567474	PLASTIC FILM, 50V 0.47UF J
C366	24693154	PLASTIC FILM CQ921 M 100V 0.15MF J
C370	24794101	ELECTROLYTIC, 16V 100UF M
C371	24794100	ELECTROLYTIC, 16V 10UF M
C391	24666100	ELECTROLYTIC, 10V 10UF M 3A
C393	24666100	ELECTROLYTIC, 10V 10UF M 3A
C396	24082825	PLASTIC FILM, 1800VH 1800PF H
C399	24085981	ELEC. NONPOLAR CE04J 16V 10UF M 11L NP
C401	24503041	PLASTIC FILM , 63V 0.1UF J
C403	24591203	PLASTIC FILM, 50V 0.02UF J
C404	24797229	ELECTROLYTIC, 50V 2.2UF M
C413	24214821	CERAMIC DISC, 500V B 820PF K
C415	24591392	PLASTIC FILM, 50V 3900PF J
C416	24678010	ELECTROLYTIC, 200V 1UF M 3A
C417	24214391	CERAMIC DISC, 500V B 390PF K
C420	24666101	ELECTROLYTIC, 16V 100UF M 3A
C423	24503125	PLASTIC FILM, 400V 0.075UF J (32AFX62)
C423	24503124	PLASTIC FILM CQ92 T 400V 68000PF J (36AFX62)
C430	24232103	CERAMIC DISC, 50V F 10000PF Z
C431	24794101	ELECTROLYTIC, 16V 100UF M
C440	24082592	PLASTIC FILM CF92 T 1800VH 1000PF H (36AFX62)
C441	24082925	PLASTIC FILM CF92 T 315V 0.62UF J (32AFX62)
C441	24082917	PLASTIC FILM, 315V 0.3UF J (36AFX62)
C442	24082924	PLASTIC FILM, 315V 0.56UF J (36AFX62)
⚠ C443	24082958	PLASTIC FILM CF92 T 1500VH 7800PF H (32AFX62)
⚠ C443	24082961	PLASTIC FILM, 1500VH 8200PF H (36AFX62)
⚠ C444	24082616	PLASTIC FILM CF92 T 1800VH 10000P (32AFX62)
⚠ C444	24082961	PLASTIC FILM, 1500VH 8200PF H (36AFX62)
C445	24828473	PLASTIC FILM, 200V 47000PF J
C446	24679330	ELECTROLYTIC, 250V 33UF M 3A
C447	24829393	PLASTIC FILM, 400V 39000PF J (32AFX62)
C447	24829473	PLASTIC FILM, 400V 47000PF J (36AFX62)

Location No.	Parts No.	Description
C448	24640962	ELECTROLYTIC, 200V 33UF M
C463	24212152	CERAMIC DISC, 50V B 1500PF K
C464	24640872	ELECTROLYTIC, 100V 10UF M 3A
C466	24503041	PLASTIC FILM , 63V 0.1UF J
⚠ C467	24503156	PLASTIC FILM CF92 T 630V 47000PF H
C471	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C472	24539474	PLASTIC FILM, 50V 0.47UF J
C474	24794100	ELECTROLYTIC, 16V 10UF M
C475	24095887	PLASTIC FILM, 630V 11000PF H
C480	24747220	ELECTROLYTIC, 50V 22UF M 7L 3A
C481	24567474	PLASTIC FILM, 50V 0.47UF J (32AFX62)
C481	24503041	PLASTIC FILM , 63V 0.1UF J (36AFX62)
C482	24539474	PLASTIC FILM, 50V 0.47UF J
C483	24503037	MT PLA CAP 63V 0.047UF J (32AFX62)
⚠ C491	24082920	PLASTIC FILM CF92 T 315V 0.39UF J (32AFX62)
⚠ C491	24082925	PLASTIC FILM CF92 T 315V 0.62UF J (36AFX62)
C492	24214121	CERAMIC DISC, 500V B 120PF K
C498	24436270	CERAMIC DISC, 50V SL 27PFJ
C501	24232103	CERAMIC DISC, 50V F 10000PF Z
C502	24232103	CERAMIC DISC, 50V F 10000PF Z
C503	24763101	ELECTROLYTIC, 16V 100UF M
C504	24591222	PLASTIC FILM, 50V 2200PF J
C505	24353120	CERAMIC DISC, 50V CH 12PF J
C508	24794100	ELECTROLYTIC, 16V 10UF M
C509	24763101	ELECTROLYTIC, 16V 100UF M
C510	24763101	ELECTROLYTIC, 16V 100UF M
C511	24232103	CERAMIC DISC, 50V F 10000PF Z
C512	24206228	ELECTROLYTIC, 50V 0.22UF M 7L 3A
C513	24232103	CERAMIC DISC, 50V F 10000PF Z
C514	24503041	PLASTIC FILM , 63V 0.1UF J
C515	24503041	PLASTIC FILM , 63V 0.1UF J
C517	24472010	CERAMIC, 50V CH 1PF M
C601	24232103	CERAMIC DISC, 50V F 10000PF Z
C602	24232103	CERAMIC DISC, 50V F 10000PF Z
C612	24793221	ELECTROLYTIC, 10V 220UF M
C621	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C622	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
C623	24591472	PLASTIC FILM, 50V 4700PF J
C624	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C625	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C626	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C627	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C628	24206100	ELECTROLYTIC, 50V 10UF M 7L 3A
C629	24206100	ELECTROLYTIC, 50V 10UF M 7L 3A
C630	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
C631	24591472	PLASTIC FILM, 50V 4700PF J
C632	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
C633	24567224	PLASTIC FILM, 50V 0.22UF J
C634	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
C635	24203220	ELECTROLYTIC, 16V 22UF M 7L 3A
C636	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C637	24206100	ELECTROLYTIC, 50V 10UF M 7L 3A
C638	24794101	ELECTROLYTIC, 16V 100UF M
C639	24232103	CERAMIC DISC, 50V F 10000PF Z
C640	24591273	PLASTIC FILM, 50V 0.027UF J
C641	24591822	PLASTIC FILM, 50V 8200PF J
C642	24206100	ELECTROLYTIC, 50V 10UF M 7L 3A
C643	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C644	24206339	ELECTROLYTIC, 50V 3.3UF M 7L 3A
C645	24591333	PLASTIC FILM, 50V 0.033UF J
C646	24591153	PLASTIC FILM, 50V 0.015MF J
C647	24591683	PLASTIC FILM, 50V 0.068UF J
C648	24591563	PLASTIC FILM, 50V 0.056MF J

Location No.	Parts No.	Description
C649	24591273	PLASTIC FILM, 50V 0.027UF J
C650	24591822	PLASTIC FILM, 50V 8200PF J
C651	24232103	CERAMIC DISC, 50V F 10000PF Z
C652	24232103	CERAMIC DISC, 50V F 10000PF Z
C653	24232103	CERAMIC DISC, 50V F 10000PF Z
C654	24763101	ELECTROLYTIC, 16V 100UF M
C660	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
C661	24794100	ELECTROLYTIC, 16V 10UF M
C664	24797220	ELECTROLYTIC, 50V 22UF M
C671	24669010	ELECTROLYTIC, 50V 1.0UF M 3A
C673	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C674	24797010	ELECTROLYTIC, 50V 1UF M
C675	24667470	ELECTROLYTIC, 25V 47UF M 3A
C676	24797479	ELECTROLYTIC, 50V 4.7UF M
C677	24591102	PLASTIC FILM, 50V 1000PF J
C678	24591102	PLASTIC FILM, 50V 1000PF J
C679	24591473	PLASTIC FILM, 50V 0.047UF J
C680	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C681	24668471	ELECTROLYTIC, 35V 470UF M 3A
C682	24668471	ELECTROLYTIC, 35V 470UF M 3A
C683	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C684	24503041	PLASTIC FILM , 63V 0.1UF J
C685	24503041	PLASTIC FILM , 63V 0.1UF J
C686	24503041	PLASTIC FILM , 63V 0.1UF J
C704	24232103	CERAMIC DISC, 50V F 10000PF Z
C705	24232103	CERAMIC DISC, 50V F 10000PF Z
C707	24794101	ELECTROLYTIC, 16V 100UF M
C713	24709100	ELECTROLYTIC, 200V 10UF M
C714	24436101	CERAMIC DISC, 50V SL 100PF J
C715	24214472	CERAMIC DISC, 500C B 4700PF K
C716	24436101	CERAMIC DISC, 50V SL 100PF J
C717	24214472	CERAMIC DISC, 500C B 4700PF K
C718	24794470	ELECTORLYTIC, 16V 47UF M
C719	24435560	CERAMIC DISC, 500V SL 56PF J
C720	24709100	ELECTROLYTIC, 200V 10UF M
C721	24794470	ELECTORLYTIC, 16V 47UF M
C726	24212102	CERAMIC DISC, 50V B 1000PF K
⚠ C801	24503002	PLASTIC FILM, AC275V 0.22UF M
⚠ C802	24503001	PLASTIC FILM, AC275V 0.1UF M
C805	24092623	CERAMIC DISC, 250V F 0.01UF Z
C806	24092623	CERAMIC DISC, 250V F 0.01UF Z
C810	24086062	ELECTROLYTIC 692Q 200V 1000UF M 3F
⚠ C811	24092585	CERAMIC DISC CK45E AC250V 4700PF M
⚠ C812	24092585	CERAMIC DISC CK45E AC250V 4700PF M
⚠ C813	24092586	CERAMIC DISC CK45F AC250V 10000PF M
⚠ C814	24092586	CERAMIC DISC CK45F AC250V 10000PF M
C831	24794470	ELECTORLYTIC, 16V 47UF M
C840	24667102	ELECTROLYTIC, 25V 1000UF M 3A
C842	24792101	ELECTROLYTIC, 6.3V 100UF M
C843	24666100	ELECTROLYTIC, 10V 10UF M 3A
C850	24794470	ELECTORLYTIC, 16V 47UF M
C860	24214103	CERAMIC DISC, 500V B 10000PF K
C861	24212101	CERAMIC DISC, 50V B 100PF K
C863	24503041	PLASTIC FILM , 63V 0.1UF J
C864	24092345	CERAMIC DISC, 2KV 1000PF K
C865	24092345	CERAMIC DISC, 2KV 1000PF K
C866	24766478	ELECTROLYTIC, 50V 0.47UF M
C867	24591103	PLASTIC FILM, 50V 0.01UF J
C868	24667470	ELECTROLYTIC, 25V 47UF M 3A
C869	24678229	ELECTROLYTIC, 200V 2.2UF M 3A
C870	24082869	PLASTIC FILM CF92 T 400V R18UF J
C871	24092345	CERAMIC DISC, 2KV 1000PF K
C873	24567224	PLASTIC FILM, 50V 0.22UF J
C874	24435221	CERAMIC DISC, 500V SL 220PF J
C875	24435221	CERAMIC DISC, 500V SL 220PF J

Location No.	Parts No.	Description
C876	24503041	PLASTIC FILM , 63V 0.1UF J
C877	24092345	CERAMIC DISC, 2KV 1000PF K
C884	24086049	ELECTROLYTIC, 160V 330UF M 3D
C885	24214471	CERAMIC DISC, 500V B 470PF K
C886	24214471	CERAMIC DISC, 500V B 470PF K
C887	24667102	ELECTROLYTIC, 25V 1000UF M 3A
C889	24668332	ELECTROLYTIC, 35V 3300UF M 3A
C891	24082229	PLASTIC FILM, 250V 0.1UF D
C892	24794100	ELECTROLYTIC, 16V 10UF M
C893	24092333	CERAMIC DISC, 2KV 100PF K
C894	24092333	CERAMIC DISC, 2KV 100PF K
C896	24214471	CERAMIC DISC, 500V B 470PF K
C897	24668332	ELECTROLYTIC, 35V 3300UF M 3A
C898	24503045	PLASTIC FILM, 63V 0.22UF J
C899	24214471	CERAMIC DISC, 500V B 470PF K
C902	24092353	CERAMIC DISC, 2KV 4700PF K
C904	24436561	CERAMIC DISC, 50V SL 560PF J
C905	24436561	CERAMIC DISC, 50V SL 560PF J
C907	24436561	CERAMIC DISC, 50V SL 560PF J
C909	24679220	ELECTROLYTIC, 250V 22UF M 3A
C910	24797478	ELECTROLYTIC, 50V 0.47UF M
C911	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C912	24794471	ELECTROLYTIC, 16V 470UF M
C913	24794100	ELECTROLYTIC, 16V 10UF M
C914	24212103	CERAMIC DISC, 50V B 10000PF K
C920	24232103	CERAMIC DISC, 50V F 10000PF Z
C921	24232103	CERAMIC DISC, 50V F 10000PF Z
C930	24214102	CERAMIC DISC, 500V B 1000PF K
C970	24794470	ELECTORLYTIC, 16V 47UF M
C971	24794470	ELECTORLYTIC, 16V 47UF M
C972	24794470	ELECTORLYTIC, 16V 47UF M
C3260	24539474	PLASTIC FILM, 50V 0.47UF J
C3440	24082395	PLASTIC FILM, 1250VH 1100PF H
CA10	24212101	CERAMIC DISC, 50V B 100PF K
CA13	24212221	CERAMIC DISC, 50V B 220PF K
CA19	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA20	24474181	CERAMIC CK141B 50V 180PF K
CA21	24085957	ELEC. NONPOLAR CE04J 50V 0.47UF M NP
CA22	24232103	CERAMIC DISC, 50V F 10000PF Z
CA23	24436181	CERAMIC DISC, 50V SL 180PF J
CA24	24085957	ELEC. NONPOLAR CE04J 50V 0.47UF M NP
CA25	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA26	24085958	ELEC. NONPOLAR CE04J 50V 1.0UF M NP
CA27	24085958	ELEC. NONPOLAR CE04J 50V 1.0UF M NP
CA29	24474221	CERAMIC, 50V B 220PF K
CA30	24474101	CERAMIC, 50V B 100PF K
CA34	24474101	CERAMIC, 50V B 100PF K
CA45	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA49	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA50	24232103	CERAMIC DISC, 50V F 10000PF Z
CA52	24591272	PLASTIC FILM, 50V 2700PF J
CA54	24474101	CERAMIC, 50V B 100PF K
CA56	24503041	PLASTIC FILM , 63V 0.1UF J
CA59	24474101	CERAMIC, 50V B 100PF K
CA60	24474101	CERAMIC, 50V B 100PF K
CA61	24666220	ELECTROLYTIC, 16V 22UF M 3A
CA64	24232103	CERAMIC DISC, 50V F 10000PF Z
CA68	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA69	24232103	CERAMIC DISC, 50V F 10000PF Z
CA71	24474101	CERAMIC, 50V B 100PF K
CA72	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L
CA73	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA541	24539474	PLASTIC FILM, 50V 0.47UF J
CB01	24794470	ELECTORLYTIC, 16V 47UF M
CB13	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L

Location No.	Parts No.	Description
CB14	24474101	CERAMIC, 50V B 100PF K
CB15	24794100	ELECTROLYTIC, 16V 10UF M
CB40	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CB41	24591102	PLASTIC FILM, 50V 1000PF J
CB42	24232103	CERAMIC DISC, 50V F 10000PF Z
CB43	24591122	PLASTIC FILM, 50V 1200PF J
CB44	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CB45	24436561	CERAMIC DISC, 50V SL 560PF J
CB77	24212271	CERAMIC DISC, 50V B 270PF K
CB90	24591103	PLASTIC FILM, 50V 0.01UF J
CB91	24794101	ELECTROLYTIC, 16V 100UF M
CD02	24591562	PLASTIC FILM, 50V 5600PF J
CD03	24591393	PLASTIC FILM, 50V 0.039MF J
CD04	24591393	PLASTIC FILM, 50V 0.039MF J
CD08	24794100	ELECTROLYTIC, 16V 10UF M
CD10	24436101	CERAMIC DISC, 50V SL 100PF J
CD12	24436101	CERAMIC DISC, 50V SL 100PF J
CD13	24797479	ELECTROLYTIC, 50V 4.7UF M
CD14	24797229	ELECTROLYTIC, 50V 2.2UF M
CD15	24794470	ELECTORLYTIC, 16V 47UF M
CD16	24797229	ELECTROLYTIC, 50V 2.2UF M
CR12	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
CR13	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
CR14	24206108	ELECTROLYTIC, 50V 0.1UF M 7L 3A
CR15	24503041	PLASTIC FILM , 63V 0.1UF J
CR16	24503041	PLASTIC FILM , 63V 0.1UF J
CR17	24503041	PLASTIC FILM , 63V 0.1UF J
CS03	24436221	CERAMIC DISC, 50V SL 220PF J
CS04	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS07	24436221	CERAMIC DISC, 50V SL 220PF J
CS08	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS09	24436331	CERAMIC DISC, 50V SL 330PF J
CS10	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS11	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS12	24436221	CERAMIC DISC, 50V SL 220PF J
CS13	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS14	24436221	CERAMIC DISC, 50V SL 220PF J
CS15	24436331	CERAMIC DISC, 50V SL 330PF J
CS16	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS21	24436101	CERAMIC DISC, 50V SL 100PF J
CS22	24436101	CERAMIC DISC, 50V SL 100PF J
CS24	24436331	CERAMIC DISC, 50V SL 330PF J
CS25	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS28	24436331	CERAMIC DISC, 50V SL 330PF J
CS29	24436331	CERAMIC DISC, 50V SL 330PF J
CS32	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS33	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CS34	24436331	CERAMIC DISC, 50V SL 330PF J
CS35	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS36	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS38	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS41	24436331	CERAMIC DISC, 50V SL 330PF J
CS42	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS43	24436331	CERAMIC DISC, 50V SL 330PF J
CS44	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS115	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS116	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS118	24794470	ELECTORLYTIC, 16V 47UF M
CS119	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CS120	24232103	CERAMIC DISC, 50V F 10000PF Z
CS121	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CV01	24085981	ELEC. NONPOLAR CE04J 16V 10UF M 11L NP
CV02	24232103	CERAMIC DISC, 50V F 10000PF Z
CV03	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV04	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A

Location No.	Parts No.	Description
CV05	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV08	24666102	ELECTROLYTIC, 16V 1000UF M 3A
CV10	24232103	CERAMIC DISC, 50V F 10000PF Z
CV11	24232103	CERAMIC DISC, 50V F 10000PF Z
CV16	24085981	ELEC. NONPOLAR CE04J 16V 10UF M 11L NP
CV17	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV19	24232103	CERAMIC DISC, 50V F 10000PF Z
CV21	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV22	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV23	24232103	CERAMIC DISC, 50V F 10000PF Z
CV24	24232103	CERAMIC DISC, 50V F 10000PF Z
CV31	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV39	24212102	CERAMIC DISC, 50V B 1000PF K
CV60	24763101	ELECTROLYTIC, 16V 100UF M
CV61	24762471	ELECTROLYTIC, 10V 470UF M
CV62	24232103	CERAMIC DISC, 50V F 10000PF Z
CV63	24763101	ELECTROLYTIC, 16V 100UF M
CV64	24232103	CERAMIC DISC, 50V F 10000PF Z
CV65	24232103	CERAMIC DISC, 50V F 10000PF Z
CV120	24794100	ELECTROLYTIC, 16V 10UF M
CW02	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CW03	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CW04	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CW05	24763101	ELECTROLYTIC, 16V 100UF M
CW06	24232103	CERAMIC DISC, 50V F 10000PF Z
CW07	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CW08	24763101	ELECTROLYTIC, 16V 100UF M
CW09	24232103	CERAMIC DISC, 50V F 10000PF Z
CY80	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
RESISTORS		
R101	24382183	OXIDE METAL FILM, 1W 18K OHM J
R150	24366101	CARBON FILM, 1/6W 100 OHM J
R151	24366562	CARBON FILM, 1/6W 5.6K OHM J
R152	24366103	CARBON FILM, 1/6W 10K OHM J
R201	24366821	CARBON FILM, 1/6W 820 OHM J
R202	24366102	CARBON FILM, 1/6W 1K OHM J
R204	24366104	CARBON FILM, 1/6W 100K OHM J
R205	24366101	CARBON FILM, 1/6W 100 OHM J
R206	24366102	CARBON FILM, 1/6W 1K OHM J
R207	24366101	CARBON FILM, 1/6W 100 OHM J
R208	24366101	CARBON FILM, 1/6W 100 OHM J
R209	24366101	CARBON FILM, 1/6W 100 OHM J
R212	24366472	CARBON FILM, 1/6W 4.7K OHM J
R213	24366122	CARBON FILM, 1/6W 1.2K OHM J
R214	24366222	CARBON FILM, 1/6W 2.2K OHM J
R216	24366103	CARBON FILM, 1/6W 10K OHM J
R217	24366102	CARBON FILM, 1/6W 1K OHM J
R218	24367103	CARBON FILM, 1/6W 10K OHM G
R223	24366102	CARBON FILM, 1/6W 1K OHM J
R227	24367562	CARBON FILM, 1/6W 5.6K OHM G (32AFX62)
R227	24367472	CARBON FILM, 1/6W 4.7K OHM G (36AFX62)
R260	24366153	CARBON FILM, 1/6W 15K OHM J
R261	24366682	CARBON FILM, 1/6W 6.8K OHM J
R266	24366102	CARBON FILM, 1/6W 1K OHM J
R267	24366102	CARBON FILM, 1/6W 1K OHM J
R268	24366102	CARBON FILM, 1/6W 1K OHM J
R269	24366102	CARBON FILM, 1/6W 1K OHM J
R270	24366682	CARBON FILM, 1/6W 6.8K OHM J
R303	24321109	OXIDE METAL FILM, 1/2W 1 OHM J
R305	24322688	OXIDE METAL FILM, 1W 0.68 OHM J
R306	24366333	CARBON FILM, 1/6W 33K OHM J
R309	24366154	CARBON FILM, 1/6W 150K OHM J
R310	24366102	CARBON FILM, 1/6W 1K OHM J
R312	24366103	CARBON FILM, 1/6W 10K OHM J

Location No.	Parts No.	Description
R313	24366153	CARBON FILM, 1/6W 15K OHM J
R317	24366472	CARBON FILM, 1/6W 4.7K OHM J
R318	24366101	CARBON FILM, 1/6W 100 OHM J
R319	24366101	CARBON FILM, 1/6W 100 OHM J
R320	24366101	CARBON FILM, 1/6W 100 OHM J
R322	24366394	CARBON FILM, 1/6W 390K OHM J
R323	24366274	CARBON FILM, 1/6W 270K OHM J
⚠ R327	24339189	METAL FILM 2W 1R8 J
R328	24366202	CARBON FILM, 1/6W 2K OHM J
R329	24366153	CARBON FILM, 1/6W 15K OHM J
R330	24366102	CARBON FILM, 1/6W 1K OHM J
R331	24366274	CARBON FILM, 1/6W 270K OHM J
R336	24383151	OXIDE METAL FILM, 2W 150 OHM J
R345	24382332	OXIDE FILM 1W 3.3K J (32AFX62)
R353	24366621	CARBON FILM, 1/6W 620 OHM J
R360	24366223	CARBON FILM, 1/6W 22K OHM J
R361	24366102	CARBON FILM, 1/6W 1K OHM J
R361	24366223	CARBON FILM, 1/6W 22K OHM J
R362	24366103	CARBON FILM, 1/6W 10K OHM J
R362	24366223	CARBON FILM, 1/6W 22K OHM J
R363	24366103	CARBON FILM, 1/6W 10K OHM J
R363	24366472	CARBON FILM, 1/6W 4.7K OHM J
R364	24366332	CARBON FILM, 1/6W 3.3K OHM J
R365	24366681	CARBON FILM, 1/6W 680 OHM J
R366	24366431	CARBON FILM, 1/6W 430 OHM J
R367	24366472	CARBON FILM, 1/6W 4.7K OHM J
R368	24366333	CARBON FILM, 1/6W 33K OHM J
⚠ R370	24321109	OXIDE METAL FILM, 1/2W 1 OHM J
R371	24366103	CARBON FILM, 1/6W 10K OHM J
R372	24366222	CARBON FILM, 1/6W 2.2K OHM J
R373	24366102	CARBON FILM, 1/6W 1K OHM J
R374	24366163	CARBON FILM, 1/6W 16K OHM J
R379	24382103	OXIDE METAL FILM, 1W 10K OHM J
R380	24946226	CARBON CONPOSITI0N, 1/2W 22M OHM K
R389	24366472	CARBON FILM, 1/6W 4.7K OHM J
R392	24552102	OXIDE METAL FILM, 1/2W 1K OHM J
R394	24366102	CARBON FILM, 1/6W 1K OHM J
R396	24366103	CARBON FILM, 1/6W 10K OHM J
R397	24366103	CARBON FILM, 1/6W 10K OHM J
R398	24366184	CARBON FILM, 1/6W 18OK OHM J
R399	24366103	CARBON FILM, 1/6W 10K OHM J
R400	24946561	CARBON COMPOSITION, 1/2W 560 OHM K
R401	24366391	CARBON FILM, 1/6W 390 OHM J
R402	24366103	CARBON FILM, 1/6W 10K OHM J
R403	24366302	CARBON FILM, 1/6W 3K OHM J
R405	24553682	OXIDE METAL FILM, 1W 6.8K OHM J
R407	24366103	CARBON FILM, 1/6W 10K OHM J
R410	24366271	CARBON FILM, 1/6W 270 OHM J
R411	24366561	CARBON FILM, 1/6W 560 OHM J
R413	24366102	CARBON FILM, 1/6W 1K OHM J
R415	24553272	OXIDE METAL FILM, 1W 2.7K OHM J
R416	24510562	CERAMIC COVERED, 5W 5.6K OHM J
R424	24545278	FUSIBLE 1/4W R27 J
R425	24552332	OXIDE METAL FILM, 1/2W 3.3K OHM J
R426	24366821	CARBON FILM, 1/6W 820 OHM J
R427	24366392	CARBON FILM, 1/6W 3.9K OHM J
R428	24366561	CARBON FILM, 1/6W 560 OHM J
R429	24552560	OXIDE METAL FILM, 1/2W 56 OHM J
R431	24366103	CARBON FILM, 1/6W 10K OHM J
R432	24531560	FUSIBLE, 1/2W 56 OHM J
R433	24366472	CARBON FILM, 1/6W 4.7K OHM J
R434	24366202	CARBON FILM, 1/6W 2K OHM J
R441	24532102	FUSIBLE, 1W 1K OHM J
R442	24382153	OXIDE METAL FILM, 1W 15K OHM J (32AFX62)
R442	24382513	OXIDE METAL FILM, 1W 51K OHM J (36AFX62)

Location No.	Parts No.	Description
R445	24310229	OXIDE METAL FILM, 1/2W 2.2 OHM J
⚠ R451	24327133	METAL FILM, 1/4W 13K OHM F
R452	24366333	CARBON FILM, 1/6W 33K OHM J
⚠ R453	24327512	METAL FILM, 1/4W 5.1K OHM F (32AFX62)
⚠ R453	24327472	METAL FILM 1/4W 4R7K F (36AFX62)
R458	24327183	METAL FILM, 1/4W 18K OHM F
R463	24322479	METAL FILM 1W 4R7 J
⚠ R470	24338568	OXIDE METAL FILM, 1W 0.56 OHM J
R471	24553301	OXIDE METAL FILM, 1W 300 OHM J
R472	24553270	OXIDE METAL FILM, 1W 27 OHM J
⚠ R475	24367221	CARBON FILM, 1/6W 220 OHM G
R476	24366823	CARBON FILM, 1/6W 82K OHM J
R477	24366273	CARBON FILM, 1/6W 27K OHM J
R478	24376333	CARBON FILM, 1/2W 33K OHM J
R479	24553131	OXIDE METAL FILM, 1W 130 OHM J
R481	24366272	CARBON FILM, 1/6W 2.7K OHM J (32AFX62)
R481	24366223	CARBON FILM, 1/6W 22K OHM J (36AFX62)
R482	24366272	CARBON FILM, 1/6W 2.7K OHM J (32AFX62)
R482	24366223	CARBON FILM, 1/6W 22K OHM J (36AFX62)
R487	24366154	CARBON FILM, 1/6W 150K OHM J
R488	24366563	CARBON FILM, 1/6W 56K OHM J
R489	24327183	METAL FILM, 1/4W 18K OHM F
R490	24366102	CARBON FILM, 1/6W 1K OHM J
R493	24366102	CARBON FILM, 1/6W 1K OHM J
R494	24366471	CARBON FILM, 1/6W 470 OHM J
R495	24366561	CARBON FILM, 1/6W 560 OHM J
R498	24510279	CERAMIC COVERED, 5W 2.7 OHM J
R501	24366223	CARBON FILM, 1/6W 22K OHM J
R502	24366101	CARBON FILM, 1/6W 100 OHM J
R503	24366101	CARBON FILM, 1/6W 100 OHM J
R504	24366101	CARBON FILM, 1/6W 100 OHM J
R505	24366102	CARBON FILM, 1/6W 1K OHM J
R506	24366103	CARBON FILM, 1/6W 10K OHM J
R508	24366102	CARBON FILM, 1/6W 1K OHM J
R509	24366102	CARBON FILM, 1/6W 1K OHM J
R510	24366102	CARBON FILM, 1/6W 1K OHM J
R511	24366101	CARBON FILM, 1/6W 100 OHM J
R512	24366101	CARBON FILM, 1/6W 100 OHM J
R514	24366122	CARBON FILM, 1/6W 1.2K OHM J
R515	24366103	CARBON FILM, 1/6W 10K OHM J
R612	24366103	CARBON FILM, 1/6W 10K OHM J
R613	24366222	CARBON FILM, 1/6W 2.2K OHM J
R621	24366101	CARBON FILM, 1/6W 100 OHM J
R622	24366105	CARBON FILM, 1/6W 1M OHM J
R623	24366101	CARBON FILM, 1/6W 100 OHM J
R624	24366101	CARBON FILM, 1/6W 100 OHM J
R625	24366101	CARBON FILM, 1/6W 100 OHM J
R626	24366101	CARBON FILM, 1/6W 100 OHM J
R627	24366101	CARBON FILM, 1/6W 100 OHM J
R630	24366223	CARBON FILM, 1/6W 22K OHM J
R631	24366223	CARBON FILM, 1/6W 22K OHM J
R633	24366101	CARBON FILM, 1/6W 100 OHM J
R634	24366101	CARBON FILM, 1/6W 100 OHM J
R635	24366101	CARBON FILM, 1/6W 100 OHM J
R636	24366101	CARBON FILM, 1/6W 100 OHM J
R637	24366101	CARBON FILM, 1/6W 100 OHM J
R638	24366101	CARBON FILM, 1/6W 100 OHM J
R639	24366101	CARBON FILM, 1/6W 100 OHM J
R640	24366101	CARBON FILM, 1/6W 100 OHM J
R641	24366101	CARBON FILM, 1/6W 100 OHM J
R642	24366101	CARBON FILM, 1/6W 100 OHM J
R643	24366101	CARBON FILM, 1/6W 100 OHM J
R668	24366122	CARBON FILM, 1/6W 1.2K OHM J
R669	24366153	CARBON FILM, 1/6W 15K OHM J
R670	24366103	CARBON FILM, 1/6W 10K OHM J

Location No.	Parts No.	Description
R671	24366272	CARBON FILM, 1/6W 2.7K OHM J
R672	24366103	CARBON FILM, 1/6W 10K OHM J
R673	24366272	CARBON FILM, 1/6W 2.7K OHM J
R675	24366103	CARBON FILM, 1/6W 10K OHM J
R676	24366223	CARBON FILM, 1/6W 22K OHM J
R677	24366223	CARBON FILM, 1/6W 22K OHM J
R680	24366473	CARBON FILM, 1/6W 47K OHM J
R682	24366104	CARBON FILM, 1/6W 100K OHM J
R683	24366333	CARBON FILM, 1/6W 33K OHM J
R684	24366229	CARBON FILM, 1/6W 2.2 OHM J
R685	24366229	CARBON FILM, 1/6W 2.2 OHM J
R686	24366229	CARBON FILM, 1/6W 2.2 OHM J
R702	24366681	CARBON FILM, 1/6W 680 OHM J
R709	24366563	CARBON FILM, 1/6W 56K OHM J
R713	24366393	CARBON FILM, 1/6W 39K OHM J
R714	24552121	OXIDE METAL FILM, 1/2W 120 OHM J
R715	24366273	CARBON FILM, 1/6W 27K OHM J
R716	24366333	CARBON FILM, 1/6W 33K OHM J
R717	24366333	CARBON FILM, 1/6W 33K OHM J
R718	24366101	CARBON FILM, 1/6W 100 OHM J
R719	24366392	CARBON FILM, 1/6W 3.9K OHM J
R720	24366392	CARBON FILM, 1/6W 3.9K OHM J
R722	24366102	CARBON FILM, 1/6W 1K OHM J
R723	24366471	CARBON FILM, 1/6W 470 OHM J
R724	24366820	CARBON FILM, 1/6W 82 OHM J
R725	24366182	CARBON FILM, 1/6W 1.8K OHM J
R730	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R731	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R732	24366820	CARBON FILM, 1/6W 82 OHM J
R733	24366683	CARBON FILM, 1/6W 68K OHM J
R734	24366820	CARBON FILM, 1/6W 82 OHM J
R735	24366683	CARBON FILM, 1/6W 68K OHM J
R736	24366620	CARBON FILM, 1/6W 62 OHM J
R737	24366152	CARBON FILM, 1/6W 1.5K OHM J
R738	24366102	CARBON FILM, 1/6W 1K OHM J
R739	24366152	CARBON FILM, 1/6W 1.5K OHM J
R740	24366620	CARBON FILM, 1/6W 62 OHM J
R741	24366279	CARBON FILM, 1/6W 2.7 OHM J
R742	24366279	CARBON FILM, 1/6W 2.7 OHM J
R743	24554221	OXIDE METAL FILM, 2W 220 OHM J
R744	24366122	CARBON FILM, 1/6W 1.2K OHM J
R745	24366122	CARBON FILM, 1/6W 1.2K OHM J
⚠ R808	24019493	THERMISTOR, PTC THERMISTOR AC140V 1R5 M
⚠ R810	24007874	CEMENT, 15W 1.0 OHM J
R831	24366821	CARBON FILM, 1/6W 820 OHM J
R832	24548399	FUSIBLE, 2W 3.9 OHM J
R850	24322759	METAL FILM 1W 7R5 J
R851	24366561	CARBON FILM, 1/6W 560 OHM J
R861	24382223	OXIDE METAL FILM, 1W 22K OHM J
R862	24552330	OXIDE METAL FILM, 1/2W 33 OHM J
R864	24552102	OXIDE METAL FILM, 1/2W 1K OHM J
R865	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R867	24366223	CARBON FILM, 1/6W 22K OHM J
R868	24552560	OXIDE METAL FILM, 1/2W 56 OHM J
R870	24381181	OXIDE FILM 1/2W 180 J
R871	24381151	OXIDE METAL FILM, 1/2W 150 OHM J
R872	24382563	OXIDE METAL FILM, 1W 56K OHM J
R883	24381682	OXIDE METAL FILM, 1/2W 6.8K OHM J
R884	24366102	CARBON FILM, 1/6W 1K OHM J
R891	24366102	CARBON FILM, 1/6W 1K OHM J
⚠ R898	24010001	CARBON FILM, 1/2W 3.9M OHM J
R901	24376561	CARBON FILM, 1/2W 560 OHM J
R902	24376561	CARBON FILM, 1/2W 560 OHM J
R903	24376561	CARBON FILM, 1/2W 560 OHM J

Location No.	Parts No.	Description
R904	24366103	CARBON FILM, 1/6W 10K OHM J
R905	24366101	CARBON FILM, 1/6W 100 OHM J
R912	24366102	CARBON FILM, 1/6W 1K OHM J
R914	24366561	CARBON FILM, 1/6W 560 OHM J
R915	24366101	CARBON FILM, 1/6W 100 OHM J
R916	24366330	CARBON FILM, 1/6W 33 OHM J
R917	24366471	CARBON FILM, 1/6W 470 OHM J
R918	24366820	CARBON FILM, 1/6W 82 OHM J
R919	24366102	CARBON FILM, 1/6W 1K OHM J
⚠ R920	24000884	FUSIBLE Z 1W 3.0 J (32AFX62)
⚠ R920	24000883	FUSIBLE, 1W 3.6 OHM J (36AFX62)
R921	24366561	CARBON FILM, 1/6W 560 OHM J
R922	24366101	CARBON FILM, 1/6W 100 OHM J
R923	24366391	CARBON FILM, 1/6W 390 OHM J
R924	24366820	CARBON FILM, 1/6W 82 OHM J
R925	24366471	CARBON FILM, 1/6W 470 OHM J
R926	24366102	CARBON FILM, 1/6W 1K OHM J
R928	24366561	CARBON FILM, 1/6W 560 OHM J
R929	24366101	CARBON FILM, 1/6W 100 OHM J
R930	24366820	CARBON FILM, 1/6W 82 OHM J
R932	24366272	CARBON FILM, 1/6W 2.7K OHM J
R933	24366750	CARBON FILM, 1/6W 75 OHM J
R934	24366391	CARBON FILM, 1/6W 390 OHM J
R935	24366821	CARBON FILM, 1/6W 820 OHM J
R936	24366750	CARBON FILM, 1/6W 75 OHM J
R937	24366471	CARBON FILM, 1/6W 470 OHM J
R939	24366680	CARBON FILM, 1/6W 68 OHM J
R940	24366122	CARBON FILM, 1/6W 1.2K OHM J
R942	24366392	CARBON FILM, 1/6W 3.9K OHM J
R943	24366392	CARBON FILM, 1/6W 3.9K OHM J
R944	24366392	CARBON FILM, 1/6W 3.9K OHM J
R945	24366330	CARBON FILM, 1/6W 33 OHM J
R946	24366330	CARBON FILM, 1/6W 33 OHM J
R947	24366103	CARBON FILM, 1/6W 10K OHM J
R948	24366103	CARBON FILM, 1/6W 10K OHM J
R949	24366103	CARBON FILM, 1/6W 10K OHM J
R950	24366302	CARBON FILM, 1/6W 3K OHM J
R951	24366682	CARBON FILM, 1/6W 6.8K OHM J
R952	24366101	CARBON FILM, 1/6W 100 OHM J
R955	24366103	CARBON FILM, 1/6W 10K OHM J
R957	24366822	CARBON FILM, 1/6W 8.2K OHM J
R960	24383153	OXIDE METAL FILM, 2W 15K OHM J
R961	24383153	OXIDE METAL FILM, 2W 15K OHM J
R962	24383153	OXIDE METAL FILM, 2W 15K OHM J
R963	24383153	OXIDE METAL FILM, 2W 15K OHM J
R964	24383153	OXIDE METAL FILM, 2W 15K OHM J
R965	24383153	OXIDE METAL FILM, 2W 15K OHM J
R973	24366472	CARBON FILM, 1/6W 4.7K OHM J
R976	24366681	CARBON FILM, 1/6W 680 OHM J
R977	24366122	CARBON FILM, 1/6W 1.2K OHM J
R978	24366681	CARBON FILM, 1/6W 680 OHM J
R979	24366681	CARBON FILM, 1/6W 680 OHM J
R980	24366471	CARBON FILM, 1/6W 470 OHM J
R981	24366821	CARBON FILM, 1/6W 820 OHM J
R982	24366103	CARBON FILM, 1/6W 10K OHM J
R983	24366222	CARBON FILM, 1/6W 2.2K OHM J
R984	24367152	CARBON FILM, 1/6W 1.5K OHM G
R985	24367471	CARBON FILM, 1/6W 470 OHM G
R986	24367681	CARBON FILM, 1/6W 680 OHM G
R987	24367681	CARBON FILM, 1/6W 680 OHM G
R988	24367472	CARBON FILM, 1/6W 4.7K OHM G
R989	24367332	CARBON FILM, 1/6W 3.3K OHM G
R990	24366222	CARBON FILM, 1/6W 2.2K OHM J
R991	24367681	CARBON FILM, 1/6W 680 OHM G
R992	24366150	CARBON FILM, 1/6W 15 OHM J

Location No.	Parts No.	Description
R993	24366471	CARBON FILM, 1/6W 470 OHM J
R994	24366392	CARBON FILM, 1/6W 3.9K OHM J
R997	24366272	CARBON FILM, 1/6W 2.7K OHM J
R998	24366472	CARBON FILM, 1/6W 4.7K OHM J
R999	24366472	CARBON FILM, 1/6W 4.7K OHM J
R3326	24366103	CARBON FILM, 1/6W 10K OHM J
⚠ R3440	24338129	METAL FILM 1W 1R2 J
R3442	24005016	METAL GLAZE, 1/2W 180K OHM J
R3443	24005016	METAL GLAZE, 1/2W 180K OHM J
R3444	24005016	METAL GLAZE, 1/2W 180K OHM J
R3445	24005016	METAL GLAZE, 1/2W 180K OHM J
R4310	24366183	CARBON FILM, 1/6W 18K OHM J
R4311	24366563	CARBON FILM, 1/6W 56K OHM J
R4385	24366822	CARBON FILM, 1/6W 8.2K OHM J
R4386	24366331	CARBON FILM, 1/6W 330 OHM J
R4460	24366102	CARBON FILM, 1/6W 1K OHM J
R4461	24366102	CARBON FILM, 1/6W 1K OHM J
R4462	24366133	CARBON FILM, 1/6W 13K OHM J
R4463	24366682	CARBON FILM, 1/6W 6.8K OHM J
R4761	24366102	CARBON FILM, 1/6W 1K OHM J
R4762	24366332	CARBON FILM, 1/6W 3.3K OHM J
R4763	24366103	CARBON FILM, 1/6W 10K OHM J
R4765	24366221	CARBON FILM, 1/6W 220 OHM J
R4766	24366182	CARBON FILM, 1/6W 1.8K OHM J
R4768	24366822	CARBON FILM, 1/6W 8.2K OHM J
R4771	24366103	CARBON FILM, 1/6W 10K OHM J
R4772	24366334	CARBON FILM, 1/6W 330K OHM J
RA01	24366102	CARBON FILM, 1/6W 1K OHM J
RA02	24366101	CARBON FILM, 1/6W 100 OHM J
RA03	24366101	CARBON FILM, 1/6W 100 OHM J
RA04	24366102	CARBON FILM, 1/6W 1K OHM J
RA05	24366102	CARBON FILM, 1/6W 1K OHM J
RA06	24366102	CARBON FILM, 1/6W 1K OHM J
RA07	24366102	CARBON FILM, 1/6W 1K OHM J
RA09	24366102	CARBON FILM, 1/6W 1K OHM J
RA10	24366102	CARBON FILM, 1/6W 1K OHM J
RA11	24366102	CARBON FILM, 1/6W 1K OHM J
RA12	24366102	CARBON FILM, 1/6W 1K OHM J
RA13	24366102	CARBON FILM, 1/6W 1K OHM J
RA15	24366102	CARBON FILM, 1/6W 1K OHM J
RA16	24366102	CARBON FILM, 1/6W 1K OHM J
RA17	24366102	CARBON FILM, 1/6W 1K OHM J
RA18	24366102	CARBON FILM, 1/6W 1K OHM J
RA19	24366102	CARBON FILM, 1/6W 1K OHM J
RA26	24366101	CARBON FILM, 1/6W 100 OHM J
RA27	24366101	CARBON FILM, 1/6W 100 OHM J
RA28	24366102	CARBON FILM, 1/6W 1K OHM J
RA29	24366102	CARBON FILM, 1/6W 1K OHM J
RA30	24366102	CARBON FILM, 1/6W 1K OHM J
RA31	24366102	CARBON FILM, 1/6W 1K OHM J
RA33	24366102	CARBON FILM, 1/6W 1K OHM J
RA34	24366102	CARBON FILM, 1/6W 1K OHM J
RA35	24366102	CARBON FILM, 1/6W 1K OHM J
RA39	24366102	CARBON FILM, 1/6W 1K OHM J
RA46	24366332	CARBON FILM, 1/6W 3.3K OHM J
RA47	24366182	CARBON FILM, 1/6W 1.8K OHM J
RA48	24366101	CARBON FILM, 1/6W 100 OHM J
RA49	24366332	CARBON FILM, 1/6W 3.3K OHM J
RA50	24366682	CARBON FILM, 1/6W 6.8K OHM J
RA51	24366151	CARBON FILM, 1/6W 150 OHM J
RA52	24366103	CARBON FILM, 1/6W 10K OHM J
RA54	24366332	CARBON FILM, 1/6W 3.3K OHM J
RA55	24366102	CARBON FILM, 1/6W 1K OHM J
RA56	24366102	CARBON FILM, 1/6W 1K OHM J
RA59	24366101	CARBON FILM, 1/6W 100 OHM J

Location No.	Parts No.	Description
RA60	24366101	CARBON FILM, 1/6W 100 OHM J
RA71	24366273	CARBON FILM, 1/6W 27K OHM J
RA72	24366153	CARBON FILM, 1/6W 15K OHM J
RA73	24366822	CARBON FILM, 1/6W 8.2K OHM J
RA74	24366153	CARBON FILM, 1/6W 15K OHM J
RA75	24366153	CARBON FILM, 1/6W 15K OHM J
RA76	24366822	CARBON FILM, 1/6W 8.2K OHM J
RA77	24366153	CARBON FILM, 1/6W 15K OHM J
RA78	24366273	CARBON FILM, 1/6W 27K OHM J
RA79	24366333	CARBON FILM, 1/6W 33K OHM J
RA80	24366101	CARBON FILM, 1/6W 100 OHM J
RA82	24366332	CARBON FILM, 1/6W 3.3K OHM J
RA83	24366332	CARBON FILM, 1/6W 3.3K OHM J
RA86	24366103	CARBON FILM, 1/6W 10K OHM J
RA87	24366103	CARBON FILM, 1/6W 10K OHM J
RA88	24366333	CARBON FILM, 1/6W 33K OHM J
RB03	24366101	CARBON FILM, 1/6W 100 OHM J
RB11	24366271	CARBON FILM, 1/6W 270 OHM J
RB12	24366103	CARBON FILM, 1/6W 10K OHM J
RB13	24366470	CARBON FILM, 1/6W 47 OHM J
RB14	24366153	CARBON FILM, 1/6W 15K OHM J
RB15	24366153	CARBON FILM, 1/6W 15K OHM J
RB16	24366332	CARBON FILM, 1/6W 3.3K OHM J
RB17	24366332	CARBON FILM, 1/6W 3.3K OHM J
RB30	24366103	CARBON FILM, 1/6W 10K OHM J
RB31	24366472	CARBON FILM, 1/6W 4.7K OHM J
RB32	24366274	CARBON FILM, 1/6W 270K OHM J
RB33	24366123	CARBON FILM, 1/6W 12K OHM J
RB34	24366392	CARBON FILM, 1/6W 3.9K OHM J
RB35	24366103	CARBON FILM, 1/6W 10K OHM J
RB37	24366302	CARBON FILM, 1/6W 3K OHM J
RB38	24366103	CARBON FILM, 1/6W 10K OHM J
RB39	24366123	CARBON FILM, 1/6W 12K OHM J
RB40	24366681	CARBON FILM, 1/6W 680 OHM J
RB41	24366273	CARBON FILM, 1/6W 27K OHM J
RB42	24366273	CARBON FILM, 1/6W 27K OHM J
RB46	24366103	CARBON FILM, 1/6W 10K OHM J
RB49	24366331	CARBON FILM, 1/6W 330 OHM J
RB75	24366472	CARBON FILM, 1/6W 4.7K OHM J
RB76	24366103	CARBON FILM, 1/6W 10K OHM J
RB77	24366222	CARBON FILM, 1/6W 2.2K OHM J
RB78	24366101	CARBON FILM, 1/6W 100 OHM J
RB81	24366122	CARBON FILM, 1/6W 1.2K OHM J
RB82	24366123	CARBON FILM, 1/6W 12K OHM J
RB83	24366123	CARBON FILM, 1/6W 12K OHM J
RB84	24366562	CARBON FILM, 1/6W 5.6K OHM J
RB90	24366392	CARBON FILM, 1/6W 3.9K OHM J
RB91	24366473	CARBON FILM, 1/6W 47K OHM J
RB92	24366271	CARBON FILM, 1/6W 270 OHM J
RB93	24366271	CARBON FILM, 1/6W 270 OHM J
RB94	24366222	CARBON FILM, 1/6W 2.2K OHM J
RB95	24366222	CARBON FILM, 1/6W 2.2K OHM J
RB96	24366273	CARBON FILM, 1/6W 27K OHM J
RB97	24366273	CARBON FILM, 1/6W 27K OHM J
RB98	24366102	CARBON FILM, 1/6W 1K OHM J
RD09	24366101	CARBON FILM, 1/6W 100 OHM J
RD11	24366101	CARBON FILM, 1/6W 100 OHM J
RD13	24366222	CARBON FILM, 1/6W 2.2K OHM J
RD14	24366103	CARBON FILM, 1/6W 10K OHM J
RD16	24366103	CARBON FILM, 1/6W 10K OHM J
RJ01	24366103	CARBON FILM, 1/6W 10K OHM J
RJ02	24366102	CARBON FILM, 1/6W 1K OHM J
RJ04	24366102	CARBON FILM, 1/6W 1K OHM J
RJ05	24323479	METAL FILM, 2W 4.7 OHM J
RJ06	24366103	CARBON FILM, 1/6W 10K OHM J

Location No.	Parts No.	Description
RM16	24366101	CARBON FILM, 1/6W 100 OHM J
RM18	24366102	CARBON FILM, 1/6W 1K OHM J
RR08	24366101	CARBON FILM, 1/6W 100 OHM J
RR09	24366222	CARBON FILM, 1/6W 2.2K OHM J
RR10	24366102	CARBON FILM, 1/6W 1K OHM J
RR12	24366151	CARBON FILM, 1/6W 150 OHM J
RR13	24366151	CARBON FILM, 1/6W 150 OHM J
RR14	24366151	CARBON FILM, 1/6W 150 OHM J
RR15	24366151	CARBON FILM, 1/6W 150 OHM J
RR16	24366151	CARBON FILM, 1/6W 150 OHM J
RR17	24366151	CARBON FILM, 1/6W 150 OHM J
RR18	24366222	CARBON FILM, 1/6W 2.2K OHM J
RR40	24366101	CARBON FILM, 1/6W 100 OHM J
RR42	24366101	CARBON FILM, 1/6W 100 OHM J
RR44	24366101	CARBON FILM, 1/6W 100 OHM J
RR46	24366681	CARBON FILM, 1/6W 680 OHM J
RR47	24366471	CARBON FILM, 1/6W 470 OHM J
RS02	24366472	CARBON FILM, 1/6W 4.7K OHM J
RS04	24366102	CARBON FILM, 1/6W 1K OHM J
RS06	24366102	CARBON FILM, 1/6W 1K OHM J
RS07	24366103	CARBON FILM, 1/6W 10K OHM J
RS08	24366103	CARBON FILM, 1/6W 10K OHM J
RS09	24366102	CARBON FILM, 1/6W 1K OHM J
RS10	24366102	CARBON FILM, 1/6W 1K OHM J
RS12	24366103	CARBON FILM, 1/6W 10K OHM J
RS21	24366104	CARBON FILM, 1/6W 100K OHM J
RS22	24366104	CARBON FILM, 1/6W 100K OHM J
RS25	24366223	CARBON FILM, 1/6W 22K OHM J
RS26	24366223	CARBON FILM, 1/6W 22K OHM J
RS27	24366471	CARBON FILM, 1/6W 470 OHM J
RS28	24366471	CARBON FILM, 1/6W 470 OHM J
RS29	24366104	CARBON FILM, 1/6W 100K OHM J
RS30	24366104	CARBON FILM, 1/6W 100K OHM J
RS31	24366103	CARBON FILM, 1/6W 10K OHM J
RS33	24366222	CARBON FILM, 1/6W 2.2K OHM J
RS34	24366222	CARBON FILM, 1/6W 2.2K OHM J
RS35	24366103	CARBON FILM, 1/6W 10K OHM J
RS36	24366103	CARBON FILM, 1/6W 10K OHM J
RS37	24366101	CARBON FILM, 1/6W 100 OHM J
RS40	24366101	CARBON FILM, 1/6W 100 OHM J
RS42	24366101	CARBON FILM, 1/6W 100 OHM J
RS48	24366101	CARBON FILM, 1/6W 100 OHM J
RS49	24366103	CARBON FILM, 1/6W 10K OHM J
RS51	24366103	CARBON FILM, 1/6W 10K OHM J
RS52	24366103	CARBON FILM, 1/6W 10K OHM J
RS101	24366123	CARBON FILM, 1/6W 12K OHM J
RS102	24366123	CARBON FILM, 1/6W 12K OHM J
RS103	24366103	CARBON FILM, 1/6W 10K OHM J
RS104	24366104	CARBON FILM, 1/6W 100K OHM J
RS105	24366332	CARBON FILM, 1/6W 3.3K OHM J
RS107	24366473	CARBON FILM, 1/6W 47K OHM J
RS108	24366473	CARBON FILM, 1/6W 47K OHM J
RS109	24366153	CARBON FILM, 1/6W 15K OHM J
RS110	24366101	CARBON FILM, 1/6W 100 OHM J
RS111	24366222	CARBON FILM, 1/6W 2.2K OHM J
RS112	24366223	CARBON FILM, 1/6W 22K OHM J
RS113	24366153	CARBON FILM, 1/6W 15K OHM J
RS114	24366101	CARBON FILM, 1/6W 100 OHM J
RS115	24366222	CARBON FILM, 1/6W 2.2K OHM J
RS116	24366223	CARBON FILM, 1/6W 22K OHM J
RV01	24366750	CARBON FILM, 1/6W 75 OHM J
RV03	24366750	CARBON FILM, 1/6W 75 OHM J
RV04	24366101	CARBON FILM, 1/6W 100 OHM J
RV07	24366750	CARBON FILM, 1/6W 75 OHM J
RV09	24366750	CARBON FILM, 1/6W 75 OHM J

Location No.	Parts No.	Description
RV10	24366100	CARBON FILM, 1/6W 10 OHM J
RV11	24366100	CARBON FILM, 1/6W 10 OHM J
RV12	24366100	CARBON FILM, 1/6W 10 OHM J
RV13	24366750	CARBON FILM, 1/6W 75 OHM J
RV14	24366750	CARBON FILM, 1/6W 75 OHM J
RV15	24366750	CARBON FILM, 1/6W 75 OHM J
RV17	24366750	CARBON FILM, 1/6W 75 OHM J
RV18	24366750	CARBON FILM, 1/6W 75 OHM J
RV19	24366332	CARBON FILM, 1/6W 3.3K OHM J
RV20	24366472	CARBON FILM, 1/6W 4.7K OHM J
RV21	24366101	CARBON FILM, 1/6W 100 OHM J
RV22	24366100	CARBON FILM, 1/6W 10 OHM J
RV23	24366100	CARBON FILM, 1/6W 10 OHM J
RV24	24366222	CARBON FILM, 1/6W 2.2K OHM J
RV28	24366472	CARBON FILM, 1/6W 4.7K OHM J
RV31	24366332	CARBON FILM, 1/6W 3.3K OHM J
RV32	24366750	CARBON FILM, 1/6W 75 OHM J
RV62	24366101	CARBON FILM, 1/6W 100 OHM J
RV63	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
RV64	24366750	CARBON FILM, 1/6W 75 OHM J
RV83	24366332	CARBON FILM, 1/6W 3.3K OHM J
RV84	24366750	CARBON FILM, 1/6W 75 OHM J
RV120	24366750	CARBON FILM, 1/6W 75 OHM J
RW01	24366683	CARBON FILM, 1/6W 68K OHM J
RW02	24366473	CARBON FILM, 1/6W 47K OHM J
RW03	24366333	CARBON FILM, 1/6W 33K OHM J
RW04	24366223	CARBON FILM, 1/6W 22K OHM J
RW05	24366102	CARBON FILM, 1/6W 1K OHM J
RW06	24366101	CARBON FILM, 1/6W 100 OHM J
RW07	24366222	CARBON FILM, 1/6W 2.2K OHM J
RW08	24366101	CARBON FILM, 1/6W 100 OHM J
RW10	24366102	CARBON FILM, 1/6W 1K OHM J
RW14	24366101	CARBON FILM, 1/6W 100 OHM J
RW16	24366101	CARBON FILM, 1/6W 100 OHM J
RW18	24366103	CARBON FILM, 1/6W 10K OHM J
RW19	24366473	CARBON FILM, 1/6W 47K OHM J
RW20	24366101	CARBON FILM, 1/6W 100 OHM J
RW24	24366471	CARBON FILM, 1/6W 470 OHM J
RW26	24366682	CARBON FILM, 1/6W 6.8K OHM J
RW27	24366682	CARBON FILM, 1/6W 6.8K OHM J
RW28	24366751	CARBON FILM, 1/6W 750 OHM J
RW29	24366102	CARBON FILM, 1/6W 1K OHM J
RW30	24366102	CARBON FILM, 1/6W 1K OHM J
RW38	24366472	CARBON FILM, 1/6W 4.7K OHM J
RW40	24366222	CARBON FILM, 1/6W 2.2K OHM J
RY80	24366331	CARBON FILM, 1/6W 330 OHM J
RY81	24366101	CARBON FILM, 1/6W 100 OHM J
RY82	24366102	CARBON FILM, 1/6W 1K OHM J
RY83	24366100	CARBON FILM, 1/6W 10 OHM J
RZ30	24366102	CARBON FILM, 1/6W 1K OHM J
COILS & TRANSFORMERS		
L101	23289845	COIL, PEAKING, TRF4680AT
L111	23289845	COIL, PEAKING, TRF4680AT
L113	23289842	COIL, PEAKING, TRF4220AT
L115	23103852	COIL, FILTER, TEM2028AH
L121	23238562	COIL, PEAKING, TRF4109AJ
L122	23238562	COIL, PEAKING, TRF4109AJ
L301	23103859	COIL, CHOKE, TEM2011
L302	23237975	COIL, PEAKING, TRF4101AC
L400	23289840	COIL, PEAKING, TRF4100AT
⚠ L441	23233092	COIL, TLN2138G (32AFX62)
⚠ L441	23233045	COIL, HOLIZ LINEARITY, TLN2083G (36AFX62)
L442	23248121	COIL, CHOKE, TLN3383D
⚠ L461	23248173	COIL, CHOKE, TLN3333AD

Location No.	Parts No.	Description
L463	23103859	COIL, CHOKE, TEM2011
L491	23228785	TRANSFORMER, DPC EI24 54.8UH, TPC1016AH (36AFX62)
L501	23289844	COIL, PEAKING, TRF4470AT
L502	23289844	COIL, PEAKING, TRF4470AT
L503	23289470	COIL, PEAKING, TRF4470AF
L702	23261974	COIL, FERRITE BEAD, HC5-035
L704	23103859	COIL, CHOKE, TEM2011
L705	23103859	COIL, CHOKE, TEM2011
L805	23248213	COIL, CHOKE, TLN3481AH
L806	23248213	COIL, CHOKE, TLN3481AH
L861	23103880	COIL, CHOKE, TEM2011Y
L862	23103880	COIL, CHOKE, TEM2011Y
L883	23103880	COIL, CHOKE, TEM2011Y
L884	23103880	COIL, CHOKE, TEM2011Y
L885	23248073	COIL, CHOKE, TLN3299D
L886	23103880	COIL, CHOKE, TEM2011Y
L887	23103880	COIL, CHOKE, TEM2011Y
L888	23248087	COIL, CHOKE, TLN3312D
L889	23248087	COIL, CHOKE, TLN3312D
L893	23103880	COIL, CHOKE, TEM2011Y
L894	23103880	COIL, CHOKE, TEM2011Y
⚠ L901	23200455	COIL, DG0.65CU 42T-2LOOP, TSB-2412AT (32AFX62)
⚠ L901	23200447	COIL, DG1.10CU T-2LOOP, TSB-2407AK (36AFX62)
L902	23289101	COIL, PEAKING, TRF4101AF
L903	23289101	COIL, PEAKING, TRF4101AF
L904	23289101	COIL, PEAKING, TRF4101AF
L905	23289390	COIL, PEAKING, TRF4390AF
L906	23289390	COIL, PEAKING, TRF4390AF
L907	23289390	COIL, PEAKING, TRF4390AF
L908	23289100	COIL, PEAKING, TRF4100AF
L910	23237991	COIL, PEAKING, TRF4479AC
L4041	23103880	COIL, CHOKE, TEM2011Y
LA22	23289840	COIL, PEAKING, TRF4100AT
LA49	23289840	COIL, PEAKING, TRF4100AT
⚠ LJ901	23200465	COIL, GEOMAGNETIC CORRECTION, TSB-2411AG
LV05	23289560	COIL, PEAKING, TRF4560AF
LV06	23289560	COIL, PEAKING, TRF4560AF
LV19	23289560	COIL, PEAKING, TRF4560AF
LV27	23103824	COIL, FILTER, TEM2028K
LV28	23103824	COIL, FILTER, TEM2028K
LV60	23289840	COIL, PEAKING, TRF4100AT
LV61	23289840	COIL, PEAKING, TRF4100AT
LW03	23103845	COIL, COMMONMODE, TEM2030AY
LW07	23289842	COIL, PEAKING, TRF4220AT
LY80	23103824	COIL, FILTER, TEM2028K
⚠ T400	23224364	TRANSFORMER, FOCUS, TLN2168AH
T401	23224367	TRANSFORMER, HORIZ DRIVER, TLN1098AH
⚠ T461	23236672	TRANSFORMER, FLY-BACK, TFB4172AD
⚠ T461Z	23236683	TRANSFORMER, FLY-BACK, TFB4172ZD
⚠ T801	23211759	COIL, LF LH35V 21990A, TRF3239AF
⚠ T840	23217233	TRANSFORMER, POWER, TPW1547AZ
⚠ T862	23217486	TRANSFORMER, CONVERTER, TPW3463AS
SEMICONDUCTORS		
Q151	23314962	TRANSISTOR, KTA1266 Y
Q152	23314965	TRANSISTOR, KTC3198 Y
Q201	23314965	TRANSISTOR, KTC3198 Y
Q202	23314965	TRANSISTOR, KTC3198 Y
Q203	23114437	TRANSISTOR, 2SC752GTM-Y
Q261	23314965	TRANSISTOR, KTC3198 Y
Q262	23314962	TRANSISTOR, KTA1266 Y

Location No.	Parts No.	Description
Q263	23314962	TRANSISTOR, KTA1266 Y
Q301	23905610	IC, LA7846N
Q301B	72471082	SCREW, 3X10MM
Q302	23905871	IC, TA1241AN
Q306	23314962	TRANSISTOR, KTA1266 Y
Q307	23114528	TRANSISTOR, 2SC1740S
Q308	23114528	TRANSISTOR, 2SC1740S
Q360	23114528	TRANSISTOR, 2SC1740S
Q370	23314962	TRANSISTOR, KTA1266 Y
Q390	23318187	IC, TA75558S
Q391	23205079	TRANSISTOR, 2SC4686A
Q402	23114755	TRANSISTOR, 2SC2482FA-1
Q404	23314955	TRANSISTOR, 2SD2553(FA)
Q404B	72471082	SCREW, 3X10MM
Q420	23314141	TRANSISTOR, 2SC3852
Q420B	70391356	SCREW, BITTB3X10 SZN
Q421	23114433	TRANSISTOR, 2SC1815-Y
Q430	23314445	TRANSISTOR, 2SC4721, Q
Q460	23314938	TRANSISTOR, 2SD2493(P)
Q460B	72471082	SCREW, 3X10MM
Q465	23314962	TRANSISTOR, KTA1266 Y
Q470	23114528	TRANSISTOR, 2SC1740S
Q471	23114426	TRANSISTOR, 2SA1015-O(TEM
Q472	23114433	TRANSISTOR, 2SC1815-Y
Q480	23114759	TRANSISTOR, 2SA949-Y
Q481	23114433	TRANSISTOR, 2SC1815-Y
Q482	23114433	TRANSISTOR, 2SC1815-Y
Q483	23114469	TRANSISTOR, RN2201
Q501	23905575	IC, TA1222BN
Q502	23314965	TRANSISTOR, KTC3198 Y
Q503	23314965	TRANSISTOR, KTC3198 Y
Q610	23906523	IC, TA8256BH
Q610B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q612	23314962	TRANSISTOR, KTA1266 Y
Q621	23000381	IC, CXA2021S
Q622	23000548	IC, TA1304N
Q670	23114623	TRANSISTOR, 2SC2878-A(TEM
Q671	23114623	TRANSISTOR, 2SC2878-A(TEM
Q672	23114623	TRANSISTOR, 2SC2878-A(TEM
Q706	23314965	TRANSISTOR, KTC3198 Y
Q707	23314965	TRANSISTOR, KTC3198 Y
Q709	23314965	TRANSISTOR, KTC3198 Y
Q710	23314962	TRANSISTOR, KTA1266 Y
Q711	23314909	TRANSISTOR, 2SA1837
Q712	23314912	TRANSISTOR, 2SC4793
Q719	23314965	TRANSISTOR, KTC3198 Y
Q720	23314965	TRANSISTOR, KTC3198 Y
⚠ Q801	23135017	IC, STR-Z4316
Q801B	23476828	BRACKET IC MOUNTING, TMX LOCAL
Q805	23114459	TRANSISTOR, RN1205
Q830	23205160	TRANSISTOR, NPN VCBO=100V, KTD2092
Q830B	70391356	SCREW, BITTB3X10 SZN
Q840	23318299	IC, L78MR05-FA
Q840B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q843	23114459	TRANSISTOR, RN1205
Q850	23205160	TRANSISTOR, NPN VCBO=100V, KTD2092
Q850B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
⚠ Q862	23000823	IC, PHOTO COUPLER, TLP421F(GR)
⚠ Q883	23319692	IC, ERROR AMP. VS=130.2V TO220A, \ SE130N, LF4
Q901	23314780	TRANSISTOR, 2SC4544
Q902	23314965	TRANSISTOR, KTC3198 Y

Location No.	Parts No.	Description
Q903	23314780	TRANSISTOR, 2SC4544
Q904	23314965	TRANSISTOR, KTC3198 Y
Q905	23314780	TRANSISTOR, 2SC4544
Q906	23314965	TRANSISTOR, KTC3198 Y
Q907	23314962	TRANSISTOR, KTA1266 Y
Q908	23114429	TRANSISTOR, 2SC2120-Y(TE
Q910	23314965	TRANSISTOR, KTC3198 Y
Q911	23314965	TRANSISTOR, KTC3198 Y
Q912	23314962	TRANSISTOR, KTA1266 Y
Q913	23314962	TRANSISTOR, KTA1266 Y
Q914	23314965	TRANSISTOR, KTC3198 Y
Q920	23314965	TRANSISTOR, KTC3198 Y
Q921	23314965	TRANSISTOR, KTC3198 Y
Q922	23314965	TRANSISTOR, KTC3198 Y
Q923	23314965	TRANSISTOR, KTC3198 Y
Q924	23314965	TRANSISTOR, KTC3198 Y
Q925	23314965	TRANSISTOR, KTC3198 Y
Q4460	23114528	TRANSISTOR, 2SC1740S
Q4461	23114528	TRANSISTOR, 2SC1740S
QA01	23009195	IC, MCU 1CHIP 16BIT 4M 64P, MN102L35GFG1
QA02	23905321	IC, 16384BITS CMOS EEPROM, 24LC16B-I/P
QA71	23114425	TRANSISTOR, 2SA1015-Y(TE
QB03	23114459	TRANSISTOR, RN1205
QB11	23114528	TRANSISTOR, 2SC1740S
QB14	23114425	TRANSISTOR, 2SA1015-Y(TE
QB30	23114528	TRANSISTOR, 2SC1740S
QB41	23314962	TRANSISTOR, KTA1266 Y
QB42	23314962	TRANSISTOR, KTA1266 Y
QB43	23314965	TRANSISTOR, KTC3198 Y
QB44	23114460	TRANSISTOR, RN1204
QB77	23314965	TRANSISTOR, KTC3198 Y
QB81	23114623	TRANSISTOR, 2SC2878-A(TEM
QB82	23114623	TRANSISTOR, 2SC2878-A(TEM
QB83	23114425	TRANSISTOR, 2SA1015-Y(TE
QB84	23114528	TRANSISTOR, 2SC1740S
QB85	23114425	TRANSISTOR, 2SA1015-Y(TE
QB86	23114425	TRANSISTOR, 2SA1015-Y(TE
QB87	23114425	TRANSISTOR, 2SA1015-Y(TE
QB88	23114425	TRANSISTOR, 2SA1015-Y(TE
QD01	23905002	IC, TA8173AP
QJ02	23114528	TRANSISTOR, 2SC1740S
QJ03	23314912	TRANSISTOR, 2SC4793
QJ04	23114528	TRANSISTOR, 2SC1740S
QM03	23314965	TRANSISTOR, KTC3198 Y
QR02	23114528	TRANSISTOR, 2SC1740S
QS01	23114623	TRANSISTOR, 2SC2878-A(TEM
QS11	23114623	TRANSISTOR, 2SC2878-A(TEM
QS12	23114466	TRANSISTOR, RN2204
QS13	23314965	TRANSISTOR, KTC3198 Y
QS14	23314965	TRANSISTOR, KTC3198 Y
QS101	23904303	IC, BA10358
QS102	23114466	TRANSISTOR, RN2204
QS103	23114623	TRANSISTOR, 2SC2878-A(TEM
QS104	23114623	TRANSISTOR, 2SC2878-A(TEM
QV01	23905539	IC, TA8851CN
QV60	23314965	TRANSISTOR, KTC3198 Y
QW01	23000043	IC, TC4053BP(N)
QW02	23314965	TRANSISTOR, KTC3198 Y
QW03	23314965	TRANSISTOR, KTC3198 Y
QW04	23314965	TRANSISTOR, KTC3198 Y
QW05	23314965	TRANSISTOR, KTC3198 Y
QW10	23314962	TRANSISTOR, KTA1266 Y
QW11	23314965	TRANSISTOR, KTC3198 Y
QW16	23314962	TRANSISTOR, KTA1266 Y

Location No.	Parts No.	Description
QW17	23114463	TRANSISTOR, RN1201
QW18	23314962	TRANSISTOR, KTA1266 Y
QY80	23314965	TRANSISTOR, KTC3198 Y
QZ11	23314965	TRANSISTOR, KTC3198 Y
D101	23316756	DIODE, ZENER, MTZJ33D
D201	23118859	DIODE, 1SS133
D215	23118859	DIODE, 1SS133
D216	23118859	DIODE, 1SS133
D217	23118859	DIODE, 1SS133
D218	23118859	DIODE, 1SS133
D219	23118859	DIODE, 1SS133
D220	23118859	DIODE, 1SS133
D301	23118094	DIODE, EU2A
D302	23118094	DIODE, EU2A
D303	23316794	DIODE, SC570A
D311	23118859	DIODE, 1SS133
D335	23316715	DIODE, ZENER, MTZJ11A
D336	23316672	DIODE, ZENER, MTZJ5.6B
D337	23118529	DIODE, ZENER, RD5.6ES B2
D338	23316655	DIODE, ZENER, MTZJ3.0B
D370	23316672	DIODE, ZENER, MTZJ5.6B
D371	23118859	DIODE, 1SS133
D390	23316651	DIODE, ZENER VZ=2.43-2.63V DO34, MTZ J 2.4B
D395	23316725	DIODE, ZENER, MTZJ15B
D401	23316719	DIODE, ZENER, MTZJ12B
D404	23316254	DIODE, ERC06-15
D406	23118094	DIODE, EU2A
D420	23316680	DIODE, ZENER, MTZJ7.5A
D430	23316689	DIODE, ZENER, MTZJ10A
D441	23316687	DIODE, ZENER, MTZJ9.1B
D442	23118094	DIODE, EU2A
D444	23316969	DIODE, ERD29-06
D462	23316653	DIODE, ZENER, MTZJ2.7B
D467	23118094	DIODE, EU2A
D470	23118859	DIODE, 1SS133
D471	23118094	DIODE, EU2A
⚠ D472	23115774	DIODE, ZENER, RD6.2E(FA-1)
D473	23118859	DIODE, 1SS133
D474	23316719	DIODE, ZENER, MTZJ12B
D477	23118859	DIODE, 1SS133
D478	23316738	DIODE, ZENER, MTZJ22B
D480	23316757	DIODE, ZENER, MTZJ36A
D490	23316718	DIODE, ZENER, MTZJ12A
D512	23118859	DIODE, 1SS133
D611	23118859	DIODE, 1SS133
D612	23118859	DIODE, 1SS133
D613	23118859	DIODE, 1SS133
D614	23118859	DIODE, 1SS133
D622	23316719	DIODE, ZENER, MTZJ12B
D670	23118859	DIODE, 1SS133
D671	23118859	DIODE, 1SS133
D674	23118859	DIODE, 1SS133
D675	23118859	DIODE, 1SS133
D704	23118859	DIODE, 1SS133
D705	23118859	DIODE, 1SS133
D715	23118859	DIODE, 1SS133
D720	23118859	DIODE, 1SS133
D721	23118859	DIODE, 1SS133
⚠ D801	23357041	DIODE, LN6SB60-F05
D801B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D830	23316673	DIODE, ZENER, MTZJ5.6C
D840	23316962	DIODE, S1WBA20
D845	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
D850	23316673	DIODE, ZENER, MTZJ5.6C
D855	23118859	DIODE, 1SS133
D862	23118094	DIODE, EU2A
D864	23118094	DIODE, EU2A
D873	23316719	DIODE, ZENER, MTZJ12B
D875	23316719	DIODE, ZENER, MTZJ12B
D876	23316747	DIODE, ZENER, MTZJ27C
D881	23118859	DIODE, 1SS133
⚠ D882	23316679	DIODE, ZENER, MTZJ6.8C
D883	23357018	DIODE, VRM=350V IF=2A S-R DO15L, RL2
D884	23357018	DIODE, VRM=350V IF=2A S-R DO15L, RL2
D885	23316819	DIODE, RU4YX
D886	23316819	DIODE, RU4YX
D891	23316819	DIODE, RU4YX
D892	23316819	DIODE, RU4YX
⚠ D899	24019486	VARISTOR, ENE431D-10A
D901	23118859	DIODE, 1SS133
D903	23118859	DIODE, 1SS133
D904	23118859	DIODE, 1SS133
D905	23118859	DIODE, 1SS133
D906	23118859	DIODE, 1SS133
D907	23118859	DIODE, 1SS133
D908	23118859	DIODE, 1SS133
D909	23118859	DIODE, 1SS133
D910	23118859	DIODE, 1SS133
D911	23115337	DIODE, 1S1834
D3440	23115999	DIODE, 1S1832
D3441	23115999	DIODE, 1S1832
D4385	23316680	DIODE, ZENER, MTZJ7.5A
D4386	23118859	DIODE, 1SS133
DA02	23316674	DIODE, ZENER, MTZJ6.2A
DA11	23118859	DIODE, 1SS133
DA34	23118859	DIODE, 1SS133
DA43	23118859	DIODE, 1SS133
DA44	23118859	DIODE, 1SS133
DA45	23118859	DIODE, 1SS133
DA46	23118859	DIODE, 1SS133
DB01	23358564	DIODE, LED, SLR-56VC3FPQ
DB03	23358522	DIODE, LED, SIR-56SB3F
DB05	23316675	DIODE, ZENER, MTZJ6.2B
DB30	23118859	DIODE, 1SS133
DB40	23118859	DIODE, 1SS133
DJ01	23118859	DIODE, 1SS133
DJ02	23316726	DIODE, ZENER, MTZJ15C
DR84	23118859	DIODE, 1SS133
DS106	23316660	DIODE, ZENER, MTZJ3.9A
DV01	23118518	DIODE, ZENER, RD9.1ES
DV02	23316686	DIODE, ZENER, MTZJ9.1A
DV03	23316686	DIODE, ZENER, MTZJ9.1A
DV07	23316686	DIODE, ZENER, MTZJ9.1A
DV08	23316686	DIODE, ZENER, MTZJ9.1A
DV09	23316686	DIODE, ZENER, MTZJ9.1A
DV11	23316686	DIODE, ZENER, MTZJ9.1A
DV12	23316686	DIODE, ZENER, MTZJ9.1A
DV13	23316686	DIODE, ZENER, MTZJ9.1A
DV17	23316686	DIODE, ZENER, MTZJ9.1A
MISCELLANEOUS		
B230	23037312	SCREW, BTBW3X12SZN
B231	23035412	SCREW, BTB4X12SZN
B232	23035312	SCREW, BTB3X12SZN
BB13A	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB13B	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB14A	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB14B	23713013	BASE SOCKET 16P 1.5

Location No.	Parts No.	Description
BB16A	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB16B	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB50	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB51	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB60	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB61	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB80	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB81	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB90	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB91	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB100	23368517	CONNECTOR, PLUG, B-B 6P
BB111	23902749	CONNECTOR, SOCKET, B-B 6P
BB130	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
BB160	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
BB510	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
BB610	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
BB810	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
BB910	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
⚠ F470	23144897	FUSE, 2A 125V
F470A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F801	23144518	FUSE, CARTRIDGE, 125V 10A
F801A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F860	23144456	FUSE, AXIAL, 125V 5.0A
⚠ F890	23144682	FUSE, CARTRIDGE 5X20, 125V 5.0A
F890A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F899	23144682	FUSE, CARTRIDGE 5X20, 125V 5.0A
F899A	23165433	FUSE HOLDER, 5.2 SOC
G101	24366101	CARBON FILM, 1/6W 100 OHM J
G102	24366101	CARBON FILM, 1/6W 100 OHM J
G302	24366472	CARBON FILM, 1/6W 4.7K OHM J
G306	24366222	CARBON FILM, 1/6W 2.2K OHM J
G312	24503039	PLASTIC FILM, 63V 0.068UF J
G403	24946223	CARBON COMPOSITION GF 1/2W 22K K
G501	24366101	CARBON FILM, 1/6W 100 OHM J
G840	24366680	CARBON FILM, 1/6W 68 OHM J
G897	23280016	COIL, PEAKING, TRF4100AZ
GZ20	23238562	COIL, PEAKING, TRF4109AJ
GZ21	23238562	COIL, PEAKING, TRF4109AJ
H003	23124086	ANTENNA SWITCH, 2I3O BUNKI US, RSU133X7
H003A	23740989	NUT, F-CONNECTOR 2H BS
KB01	23906805	IC, REMOTE PHOTO RECIEVER, PIC-TB17
M461A	23192957	ANODE CAP ASSY, TCC5602AT
M461B	23505090	CABLE, CABLE FOCUS
M461C	23505089	CABLE, CABLE FOCUS
M461D	23504719	CABLE, SCREEN
N726	23969041	TAPE WHITE 3M #1, W=1 INCH TNP COMMON
P511	23902865	CONNECTOR, SOCKET B-B, 12P MOLEX-52556
P512	23902863	SOCKET, B-B, 20P 2MM SMK
P513	23902863	SOCKET, B-B, 20P 2MM SMK
⚠ P801	23372113	POWER CORD, U/C 125V10A HSV 2 CMC-02P 1
PV02	23365819	JACK, 1S3P
PV05	23368520	CONNECTOR, 20P, 2MM
PV06	23368520	CONNECTOR, 20P, 2MM
PV07	23368273	CONNECTOR, PLUG, B-B 12P
S602	23145412	SWITCH, SLIDE SW 2C2P
SA01	23145227	SWITCH, PUSH, 1C1P

Location No.	Parts No.	Description
SA02	23145227	SWITCH, PUSH, 1C1P
SA03	23145227	SWITCH, PUSH, 1C1P
SA04	23145227	SWITCH, PUSH, 1C1P
SA05	23145227	SWITCH, PUSH, 1C1P
SA06	23145227	SWITCH, PUSH, 1C1P
SA07	23145227	SWITCH, PUSH, 1C1P
SA08	23145227	SWITCH, PUSH, 1C1P
SJ01	23146958	RELAY, 2C 1A DC12V OMRON
⚠ SR81	23146556	RELAY, DC12V 1A TV8
⚠ SR83	23146570	RELAY, DC12V, 2M OMR, G5PA-2 DC12
UZ01	23148747	MODULE, MYCJ32, 3D-YCS COMB
⚠ V901A	23903027	CRT SOCKET, 8P SMK CVT3251-0176 CVT3251-0176
W661	23351171	SPEAKER, 60X120 8-OHM 10W, SPK-1416AT
W662	23351171	SPEAKER, 60X120 8-OHM 10W, SPK-1416AT
W665	23351194	SPEAKER, SPK1392BO
X401	23153721	CERAMIC RESONATOR, 503KHZ
X501	23153961	CRYSTAL, 3.58MHZ
XA01	23153011	RESONATOR, TCR1050
Y101	23565703	OWNER'S MANUAL, ENGLISH/FRENCH 32AFX62
Z401	23140203	SPARK GAP, 2.0-3.0KV C-010, AG20PC152F-L3N
ZY01	23148736	MULTI PICTURE MODULE, PNT 6/9M, MKMU31
PC BOARD ASSEMBLIES		
✻ U801	23787651	POWER/DEF BOARD, PB9631G (32AFX62)
✻ U801	23787846	POWER/DEF BOARD, PB9631H (36AFX62)
✻ U901	23787652	CRT/DRIVE BOARD, PB9973K (32AFX62)
✻ U901	23787848	CRT/DRIVE BOARD, PB9973L(36AFX62)
✻ U902	23787672	SIGNAL BOARD, PB9635G (32AFX62)
✻ U902	23787847	SIGNAL BOARD, PB9635H (36AFX62)
✻ UA01	23787821	CONTROL- BOARD, PD0651B
✻ UA02	23787822	CONTROL-2 BOARD, PD0652B
✻ UV01	23785234	BACK AV BOARD, PB9633A
PICTURE TUBE		
⚠ V901	23312986	PICTURE TUBE, 32VPF 1H TDDI, A80AJZ90X01 (32AFX62)
⚠ V901	23312953	PICTURE TUBE, ITC, A90AJZ90X04, TDD (36AFX62)
TUNER		
⚠ H001	23321447	TUNER, TIM 181CH IIC PH SHINSEN, EL977LW
⚠ HY01	23321445	TUNER, TIF US IIC PH 181CH MONO, EL973L
ACCESSORIES		
⚠ K912	23306458	REMOCON HAND UNIT IR, CTVUSA, CT-90121
⚠ Y101	23565703	OWNER'S MANUAL, ENGLISH, 32AFX62/36AFX62
CABINET PARTS		
A201	23530162	COVER, FRONT COVER ASSEMBLY (32AFX62)
A201	23530199	COVER, FRONT COVER ASSSEMBLY (36AFX62)
A213	23428071	DOOR, DOOR
A214	23451976	PUSH CATCH, CLICK
A223	23445612	BUTTON, POWER BUTTON (36AFX62)
A224	23445610	BUTTON, CONTROL BUTTON
A225	23445612	BUTTON, POWER BUTTON (32AFX62)
A411	23540031	COVER, BACK COVER PROPER (32AFX62)
A411	23540212	COVER, B/C PROPER (36AFX62)
A701	23064254	CARTON, CARTON (32AFX62)
A701	23064768	CARTON, CARTON (36AFX62)

Location No.	Parts No.	Description
A703	23946056	PACKING, TOP PACKING (32AFX62)
A703	23946353	PACKING, TOP PACKING (36AFX62)
A708	23946057	PACKING, BOTTOM PACKING (32AFX62)
A708	23946354	PACKING, BOTTOM PACKING (36AFX62)

Location No.	Parts No.	Description

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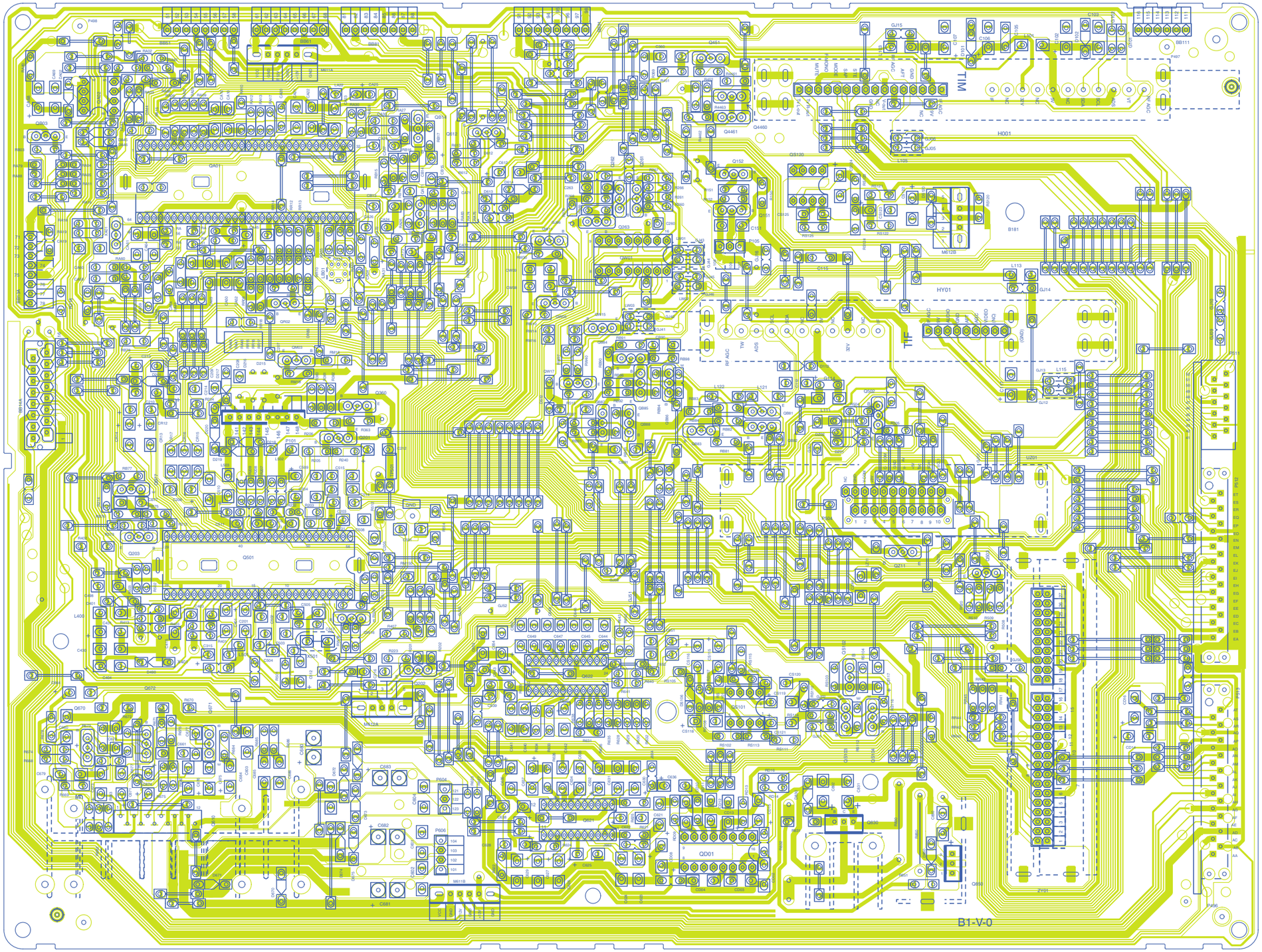
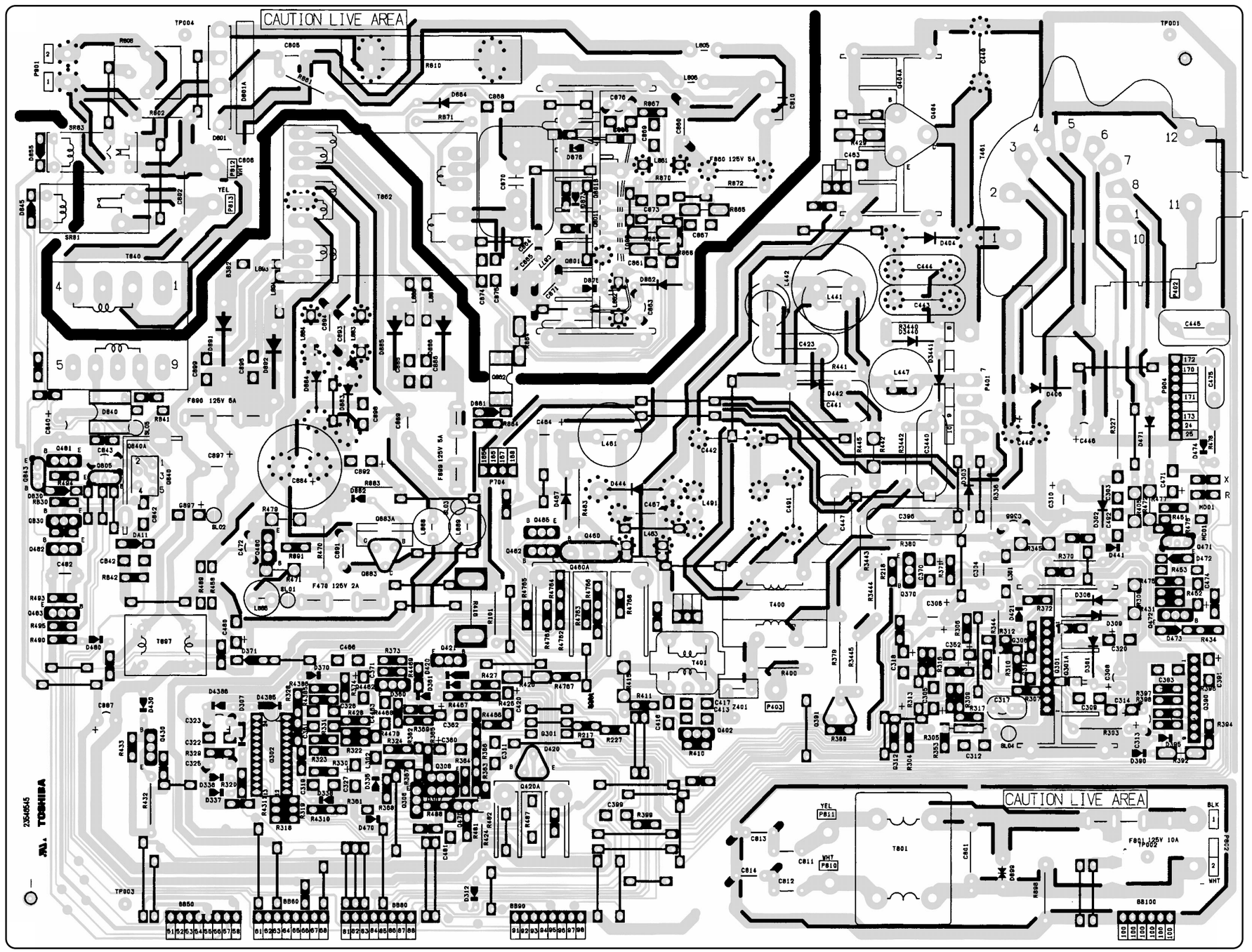
SIGNAL BOARD PB9635G

BOTTOM (FOIL) SIDE



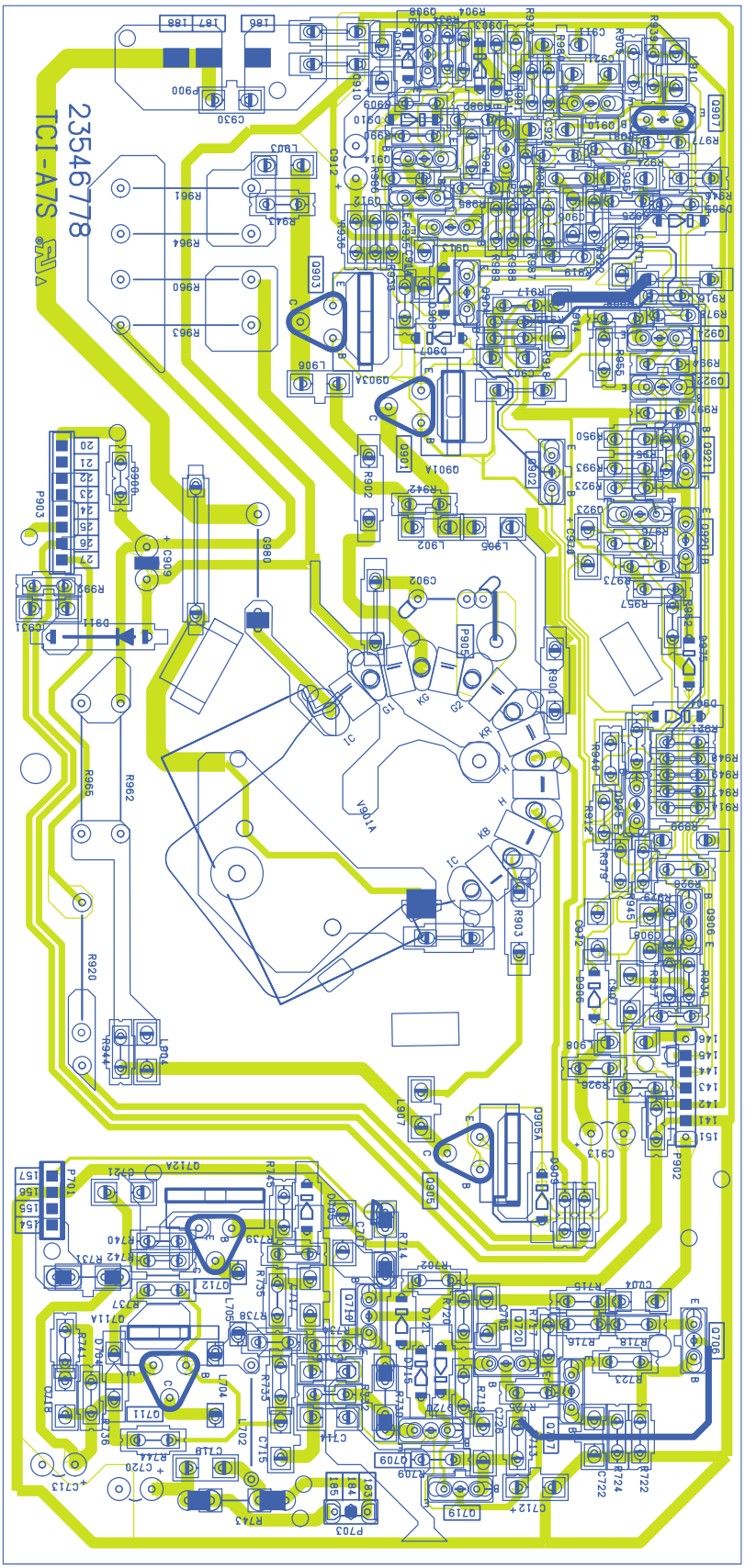
POWER/DEF BOARD PB9631G

BOTTOM (FOIL) SIDE



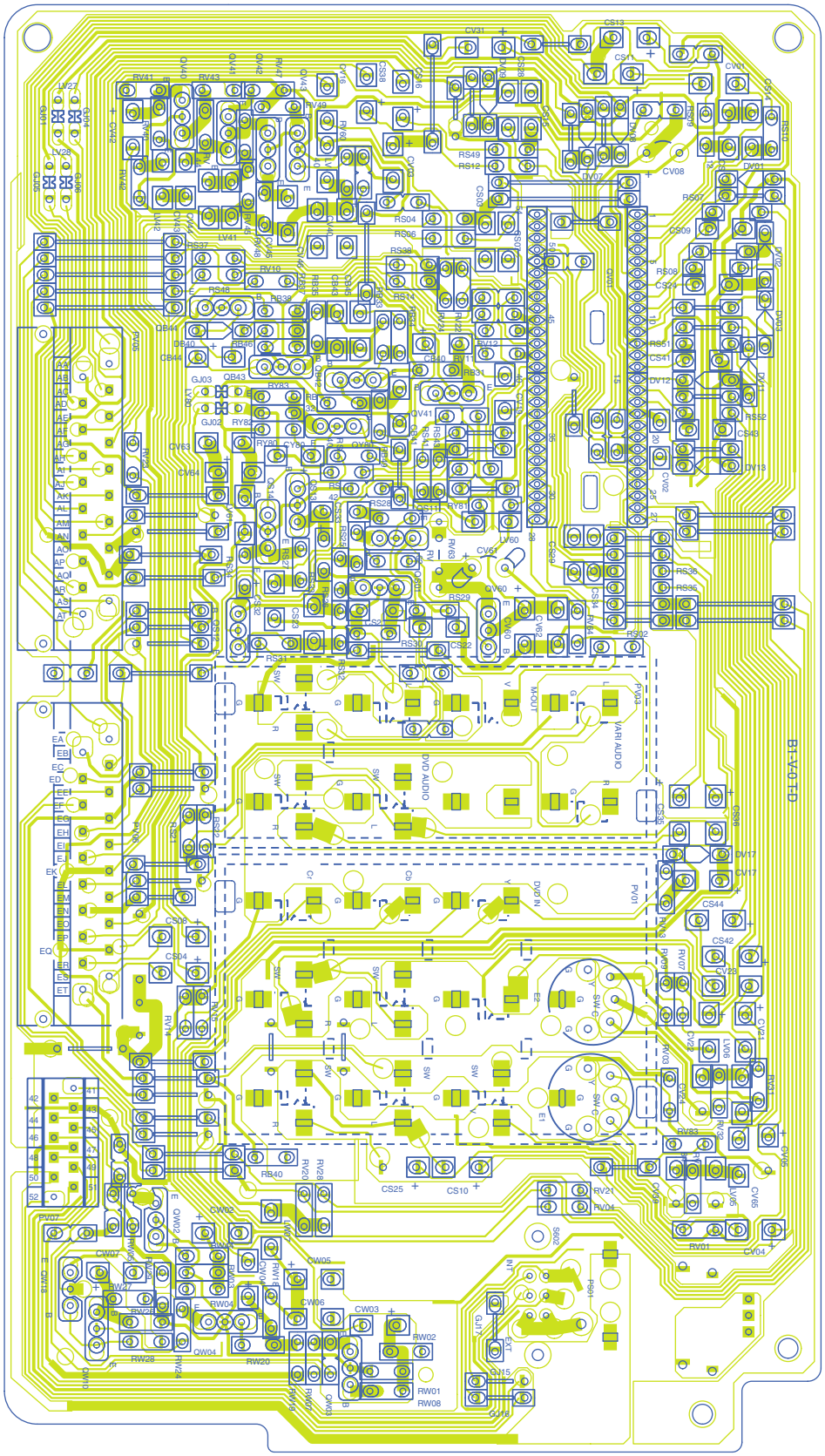
CRT DRIVE BOARD PB9973K

BOTTOM (FOIL) SIDE



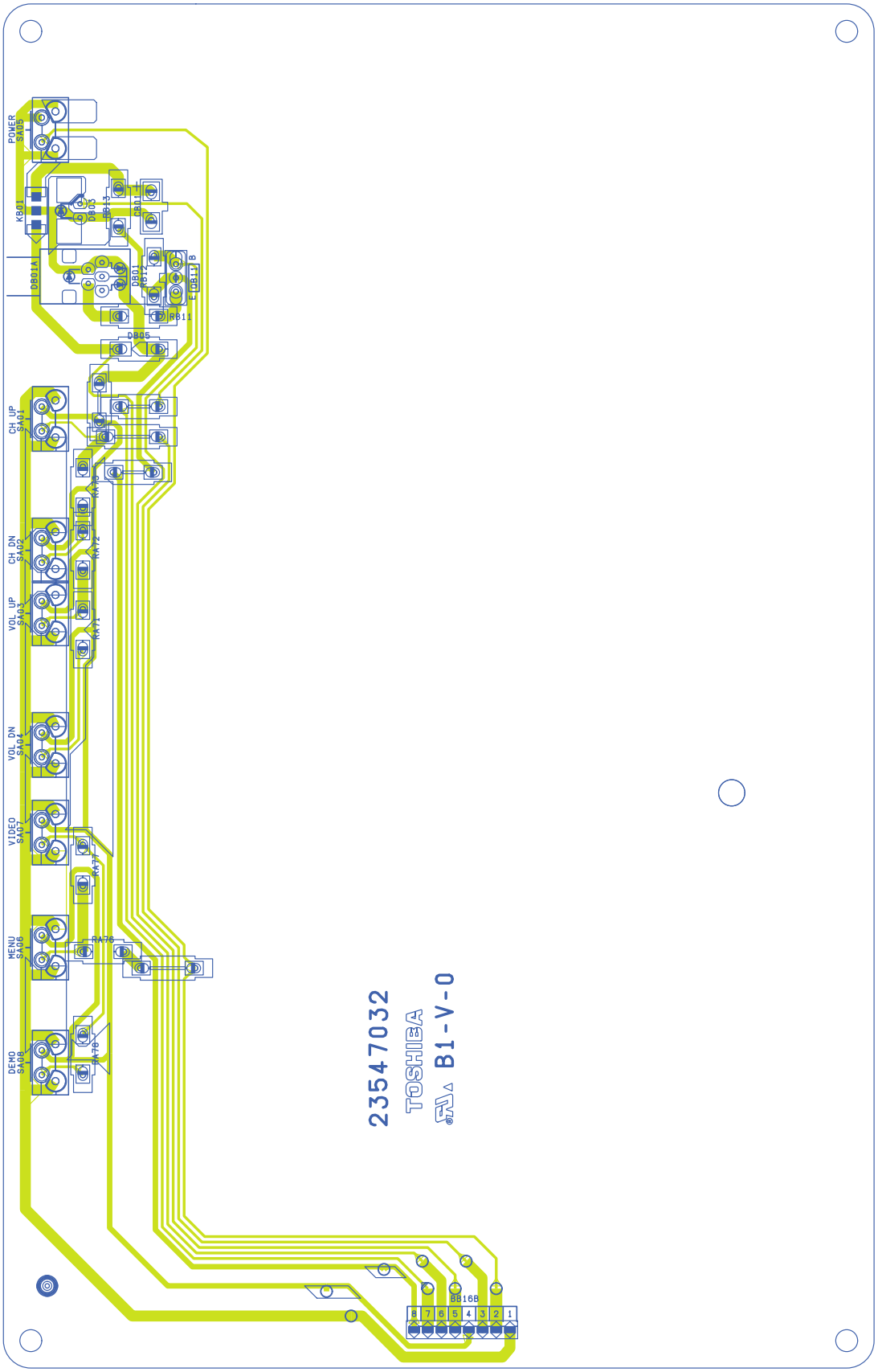
BACK A/V BOARD PB9633A

BOTTOM (FOIL) SIDE



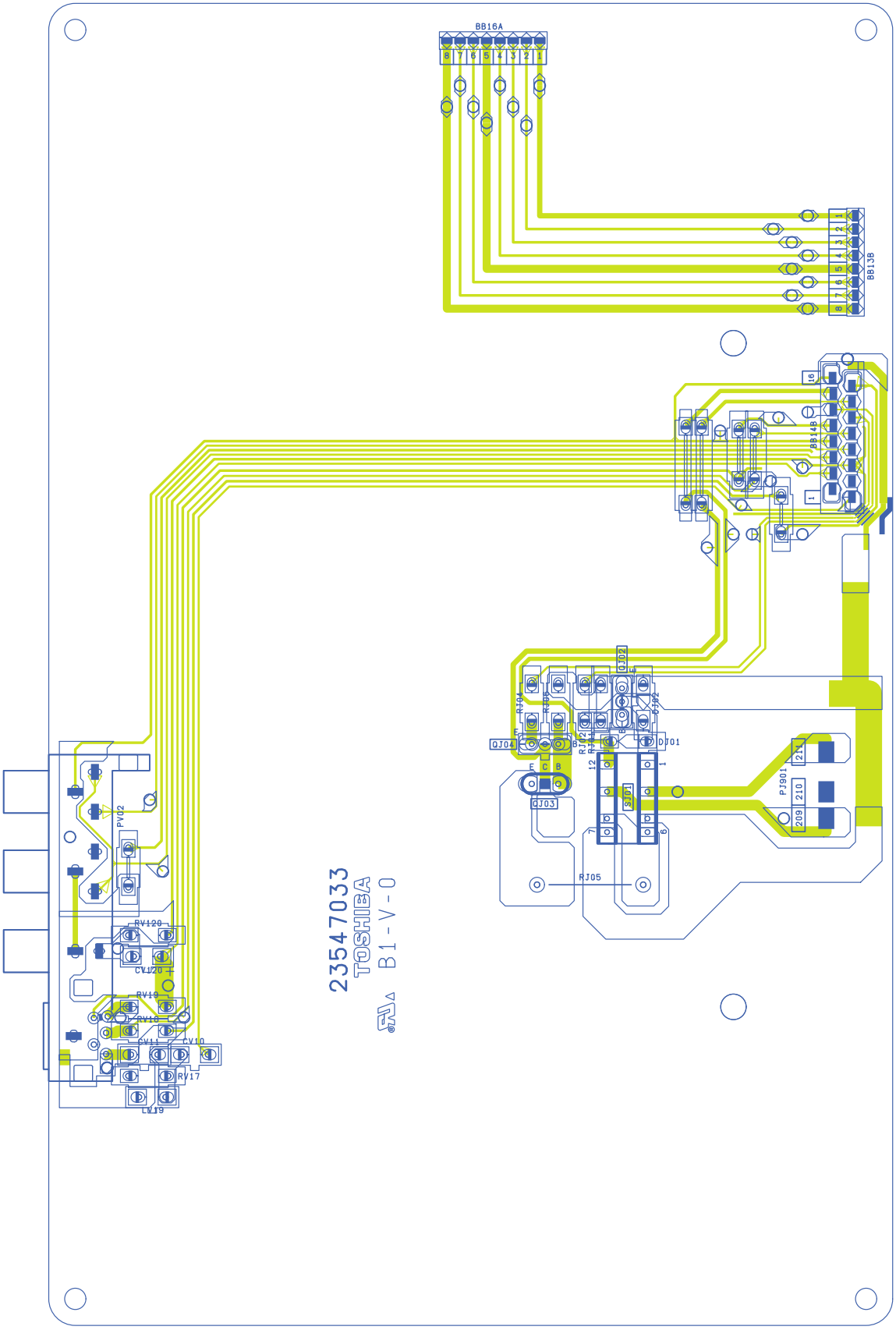
CONTROL-1 BOARD PD0651B

BOTTOM (FOIL) SIDE



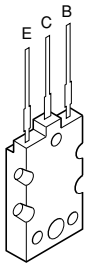
CONTROL-2 BOARD PD0652B

BOTTOM (FOIL) SIDE

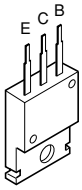


TERMINAL VIEW OF TRANSISTORS

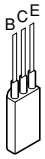
① 2SD2253
(old)
2SC5243



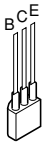
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



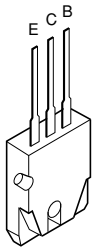
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



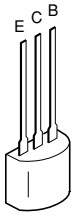
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



⑤ 2SA1788



⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
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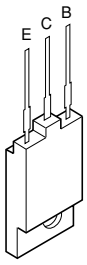
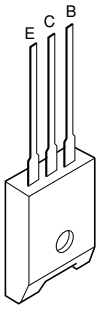
2SC5143
2SC5570
2SD2553



⑧ ON4409



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SCHEMATIC DIAGRAM

MODEL : 32AFX62 / 36AFX62

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

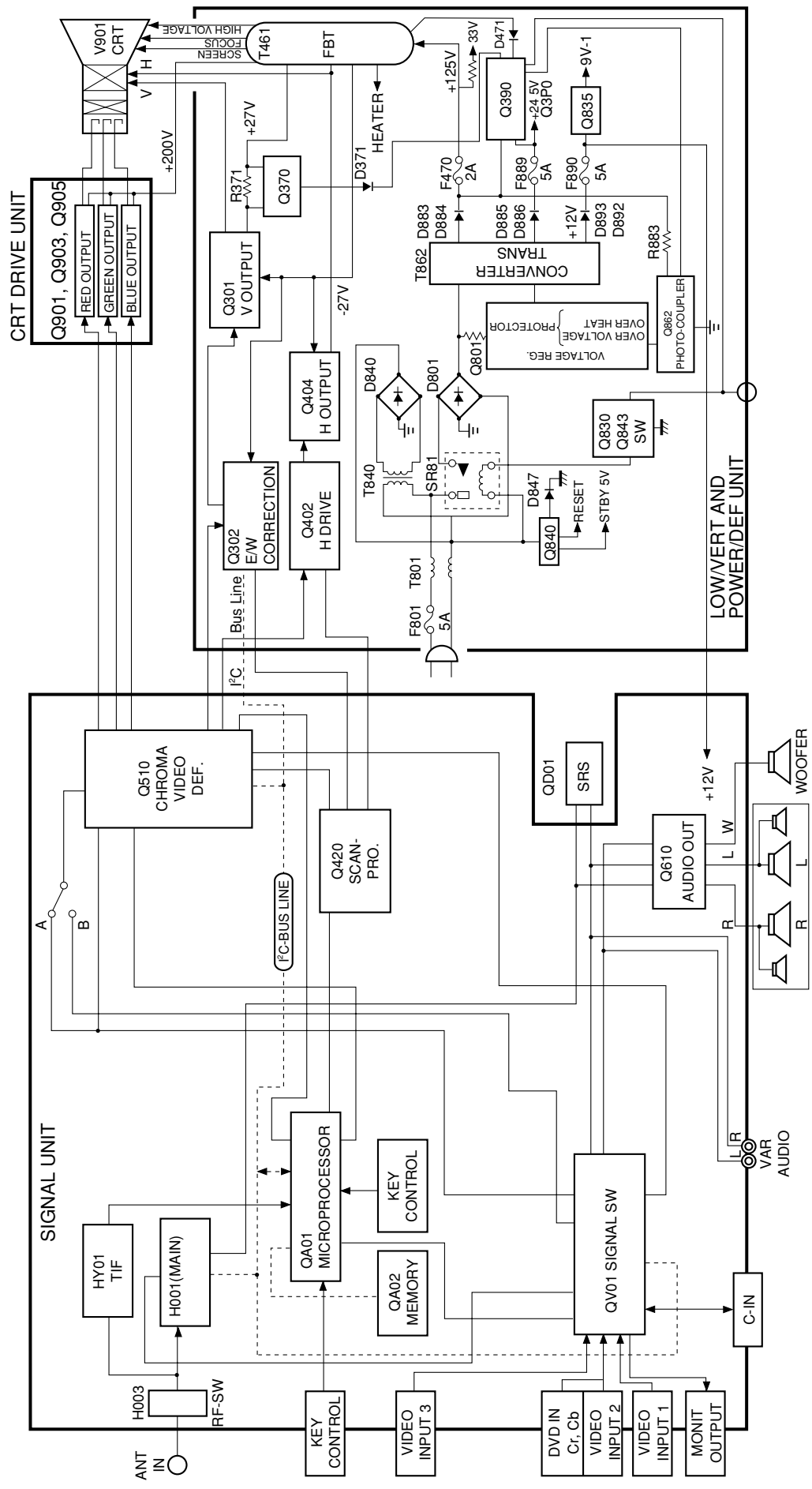
NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 120 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

- SIGNAL Circuit
  - BANKAN [SHEET - 1/8] 1/16
  - SOUND [SHEET - 2/8] 2/16
  - SOUND-2 [SHEET - 3/8] 3/16
  - TUNER / IF [SHEET - 4/8] 4/16
  - MICON-2 [SHEET - 5/8] 5/16
  - MICON-1 [SHEET - 6/8] 6/16
  - VCD-1 [SHEET - 7/8] 7/16
  - VCD-2 [SHEET - 8/8] 8/16
- POWER / DEF Circuit
  - BANKAN [SHEET - 1/4] 9/16
  - POWER [SHEET - 2/4] 10/16
  - V-DEF [SHEET - 3/4] 11/16
  - H-DEF [SHEET - 4/4] 12/16
- BACK-AV Circuit 13/16
- CRT-D / VM Circuit 14/16
- CONTROL-1 Circuit 15/16
- CONTROL-2 Circuit 16/16

CIRCUIT BLOCK DIAGRAM



SPECIFICATIONS (Representative: 32AFX62)	
TELEVISION SYSTEM	NTSC standard
CHANNEL COVERAGE	VHF: 2 through 13 UHF: 14 through 69 Cable TV: mid band (A-8 through A-1, A through I) super band (J through W) hyper band (AA through ZZ, AAA, BBB) ultra band (65 through 94, 100 through 125)
POWER SOURCE	120V AC, 60Hz
AUDIO POWER	10W + 10W, 13 W (Sub-woofer)
SPEAKER TYPE	Two 2-3/8 x 4-3/4 inches (60 x 120mm), one 4 inches (10cm)
VIDEO/AUDIO TERMINALS	S-VIDEO INPUT Y: 1V(p-p), 75 ohm, negative sync. C: 0.286V(p-p) (burst signal), 75 ohm VIDEO/AUDIO INPUT VIDEO: 1V(p-p), 75 ohm, negative sync. AUDIO: 150mV(rms) (30% modulation equivalent, 47k ohm) ColorStream™ (Component video) INPUT Y: 1V (p-p), 75 ohm C_B: 0.7 V (p-p), 75 ohm C_R: 0.7 V (p-p), 75 ohm AUDIO: 150 mV (rms) 47k ohm VIDEO/AUDIO OUT PUT VIDEO: 1 V (p-p), 75 ohm, negative sync. AUDIO: 150 mV (rms) (30% modulation equivalent, 4.7k ohm) VARIABLE AUDIO OUTPUT 0-300mV(rms) (30% modulation equivalent, 4.7k ohm) AUDIO CENTER CHANNEL INPUT 300mV(rms) (30% modulation equivalent, 10k ohm)
DIMENSIONS	Width ..... 875 mm Height ..... 670 mm Depth ..... 575 mm
MASS	66.3 kg
SUPPLIED ACCESORIES	Remote Control with 2 "AA" size alkaline batteries

* Please refer to owner's manual in detail.

– END –

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

SCHEMATIC DIAGRAM

MODEL : 32AFX62 / 36AFX62

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

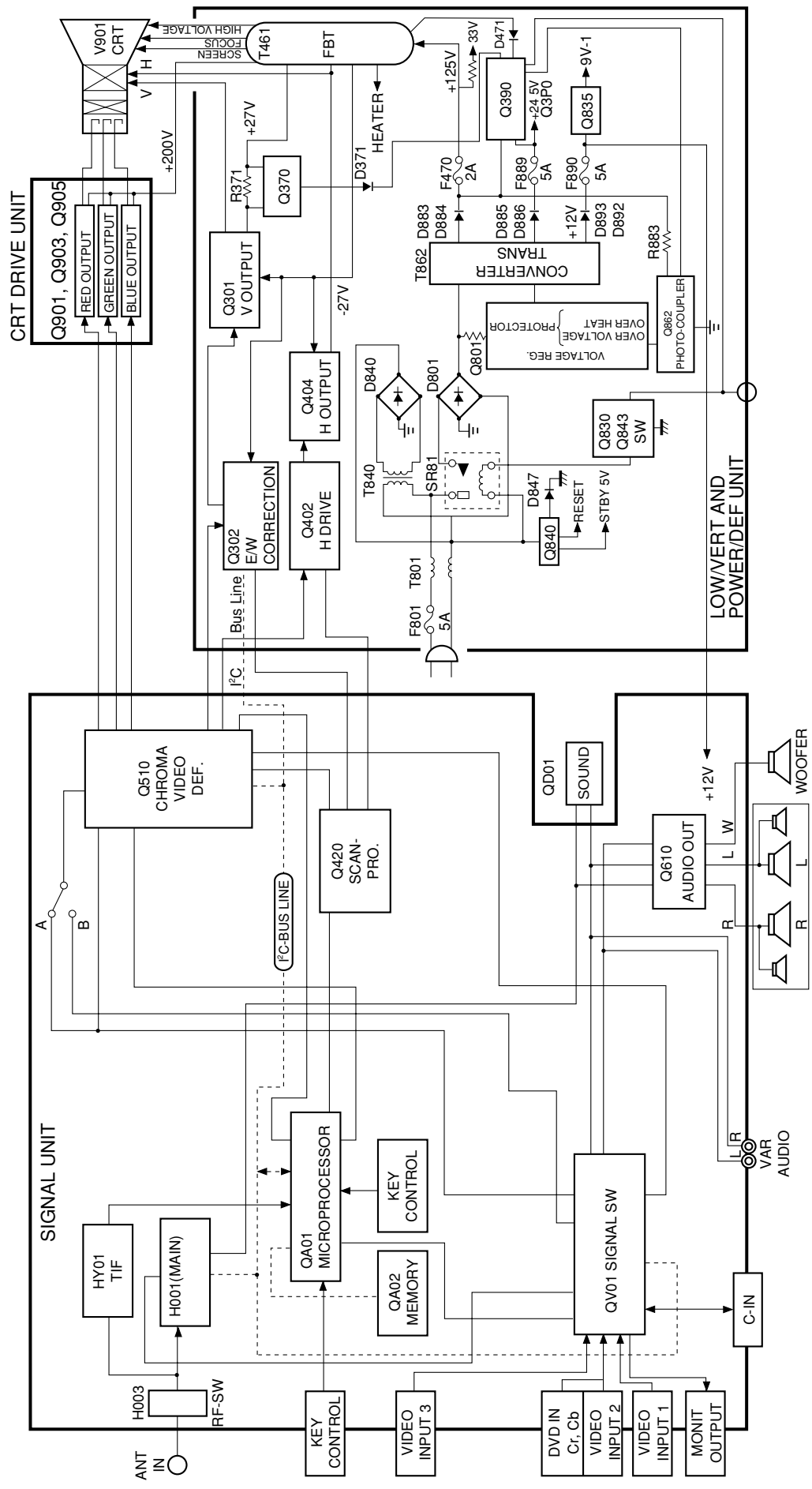
NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 120 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

- SIGNAL Circuit
  - BANKAN [SHEET - 1/8] 1/16
  - SOUND [SHEET - 2/8] 2/16
  - SOUND-2 [SHEET - 3/8] 3/16
  - TUNER / IF [SHEET - 4/8] 4/16
  - MICON-2 [SHEET - 5/8] 5/16
  - MICON-1 [SHEET - 6/8] 6/16
  - VCD-1 [SHEET - 7/8] 7/16
  - VCD-2 [SHEET - 8/8] 8/16
- POWER / DEF Circuit
  - BANKAN [SHEET - 1/4] 9/16
  - POWER [SHEET - 2/4] 10/16
  - V-DEF [SHEET - 3/4] 11/16
  - H-DEF [SHEET - 4/4] 12/16
- BACK-AV Circuit 13/16
- CRT-D / VM Circuit 14/16
- CONTROL-1 Circuit 15/16
- CONTROL-2 Circuit 16/16

CIRCUIT BLOCK DIAGRAM



U902 SIGNAL PB9635E

TO DEF/POWER

TO A/V

TO DEF/POWER

PIP MODULE

ZY01

TO CONTROL

TO A/V

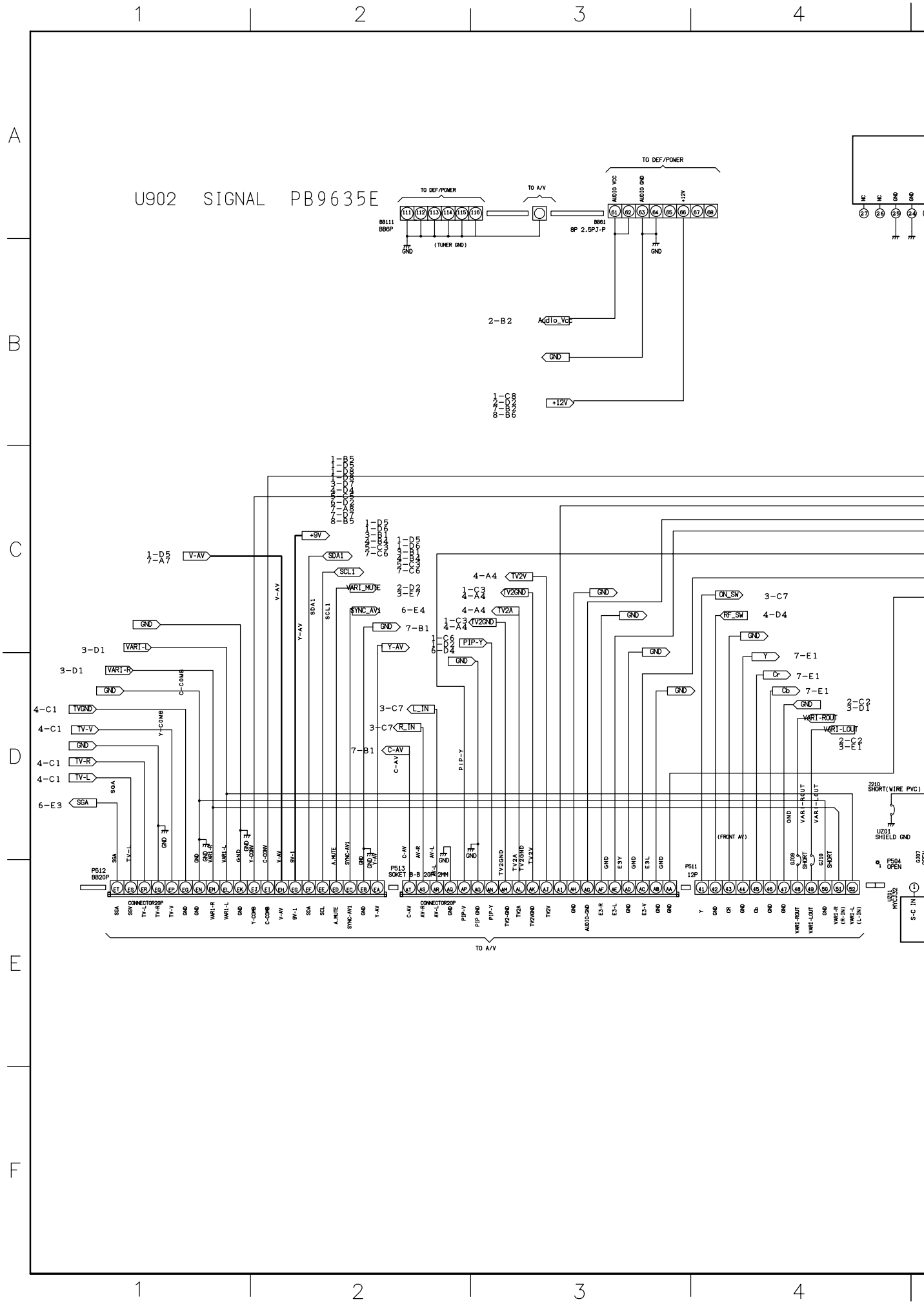
TO CONTROL

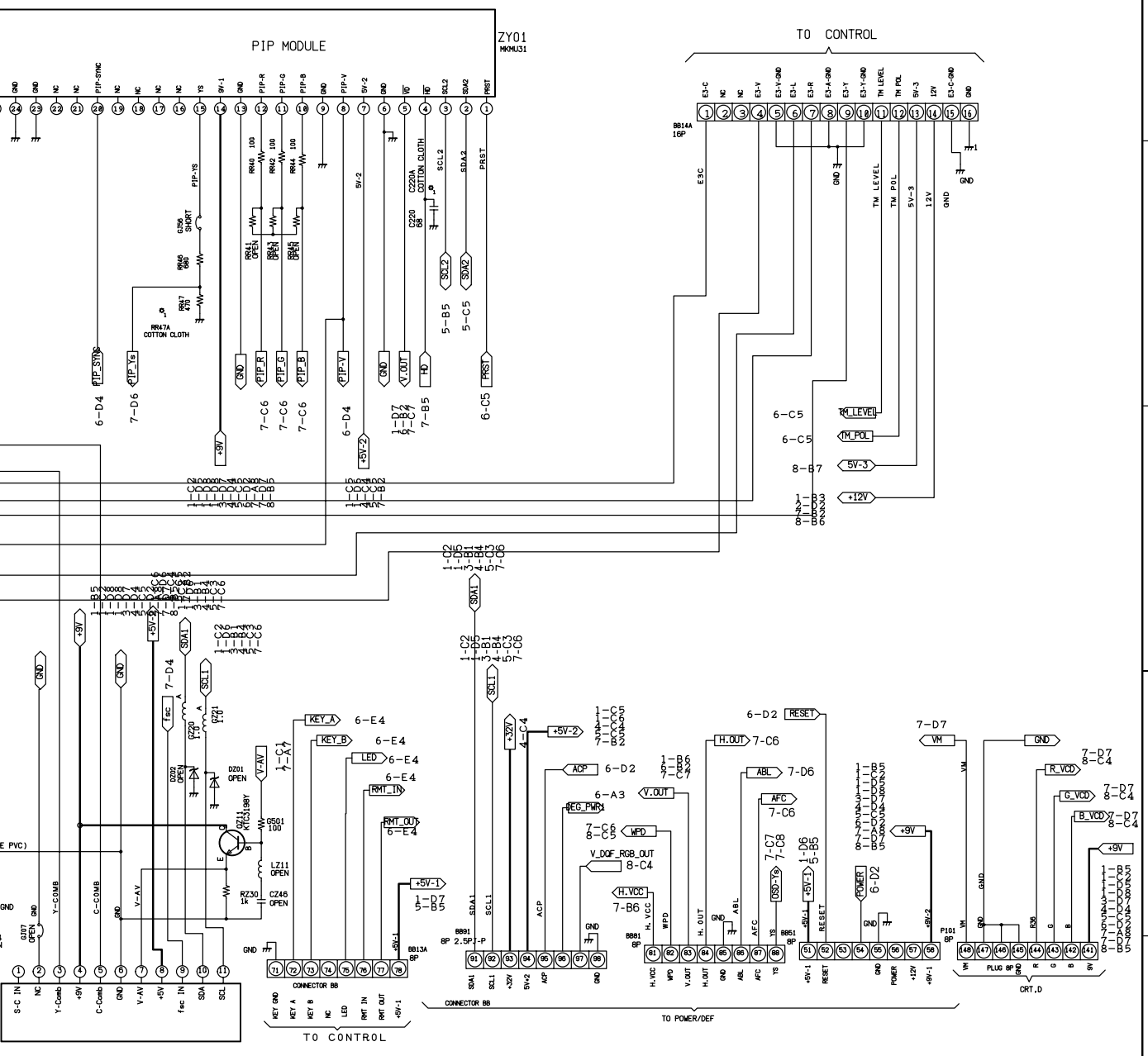
TO POWER/DEF

CRT,D

32AFX62
36AFX62

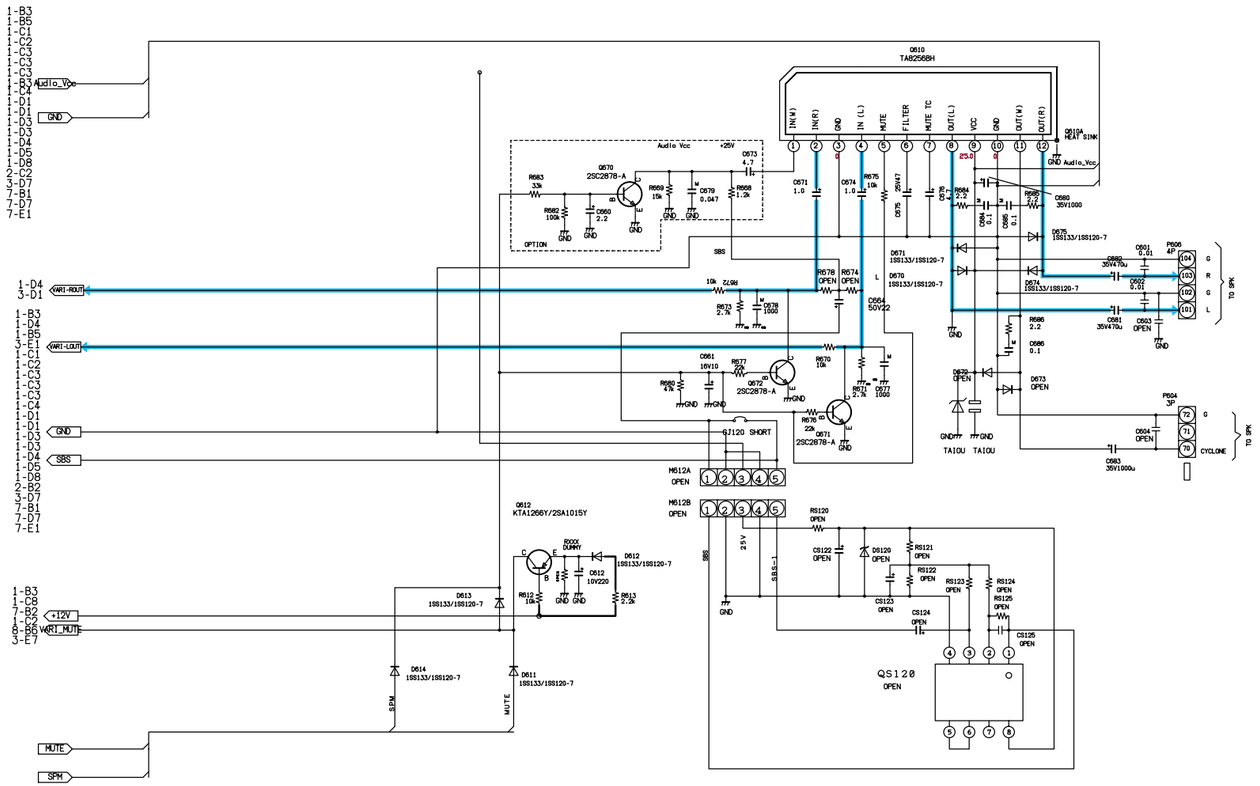
SIGNAL-BANKAN
[SHEET-1/8]


U902 SIGNAL PB9635E
TO DEF/POWER
TO A/V
TO DEF/POWER
AUDIO VCC
AUDIO GND
+12V
BB111
BB6P
BB61
8P 2.5PJ-P
(TUNER GND)
GND
2-B2
Audio_Vcc
+12V
+9V
V-AV
SDA1
SCL1
VARI_MUDE
SYNC_AV1
Y-AV
L_IN
R_IN
C-AV
PIP-Y
TV2V
TV2GND
TV2A
ON_SW
RF_SW
Y
Cr
Cb
VARI-ROUT
VARI-LOUT
VARI-L
VARI-R
TVGND
TV-V
TV-R
TV-L
SGA
C-COMB
Y-COMB
P512
BB20P
P513
SOKET B-B 20R-2MM
P511
12P
CONNECTOR20P
I210
SHORT(WIRE PVC)
UZ01
SHIELD GND
P504
OPEN
(FRONT AV)
TO A/V

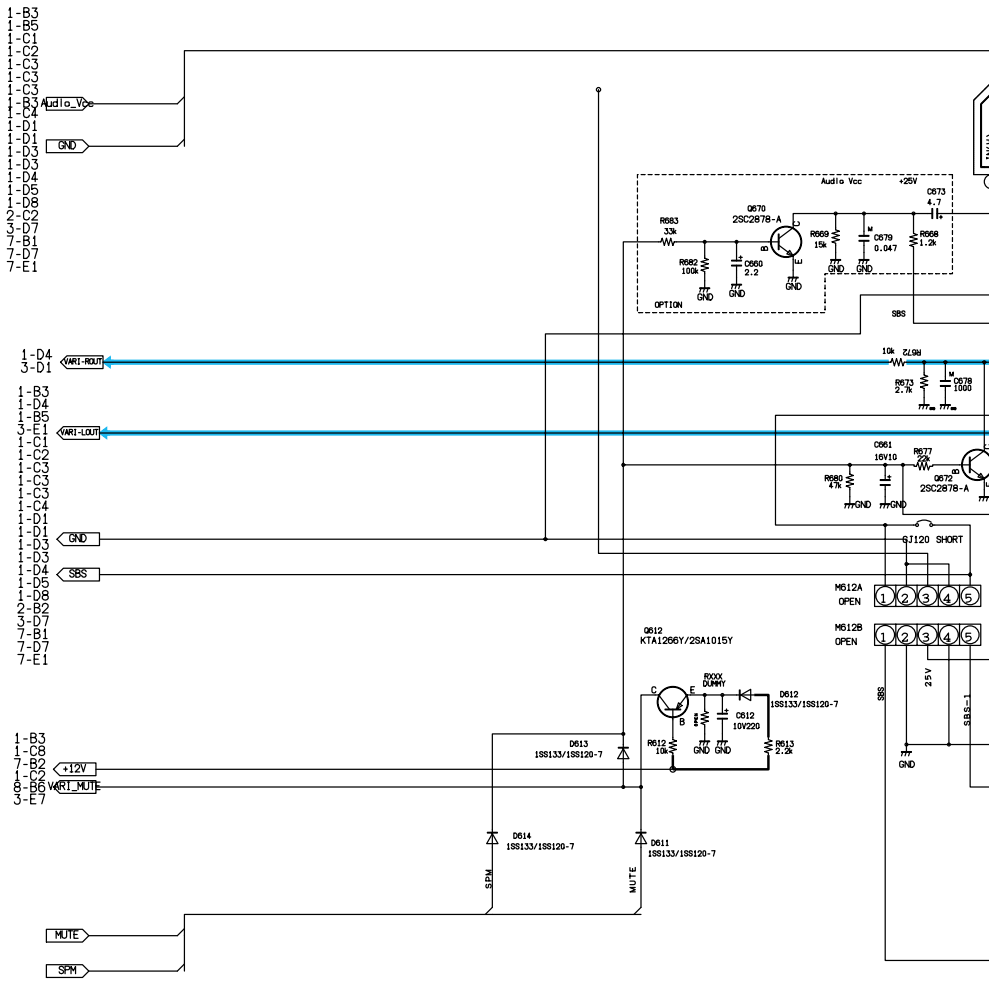


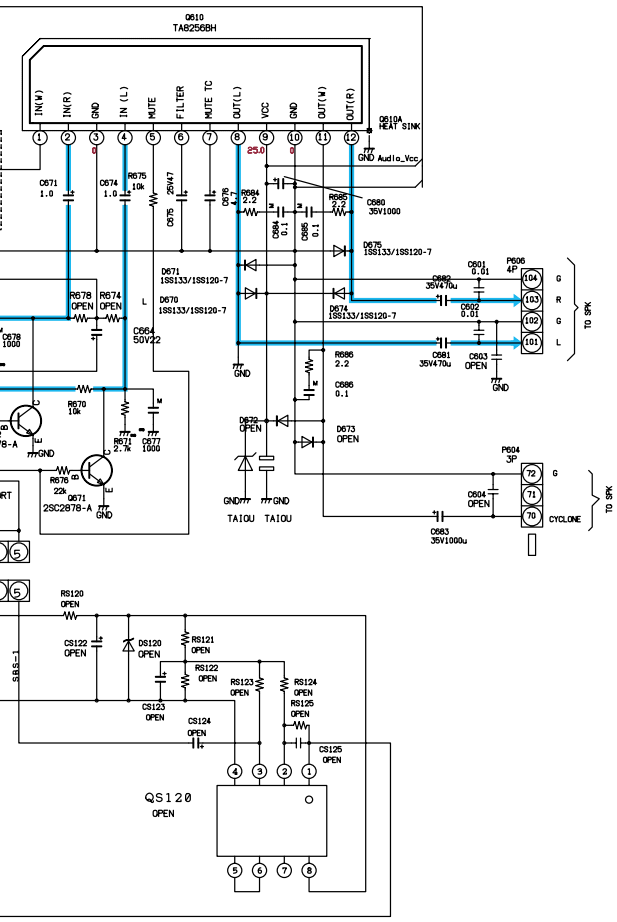
32AFX62
36AFX62

SIGNAL-BANKAN
[SHEET-1/8]

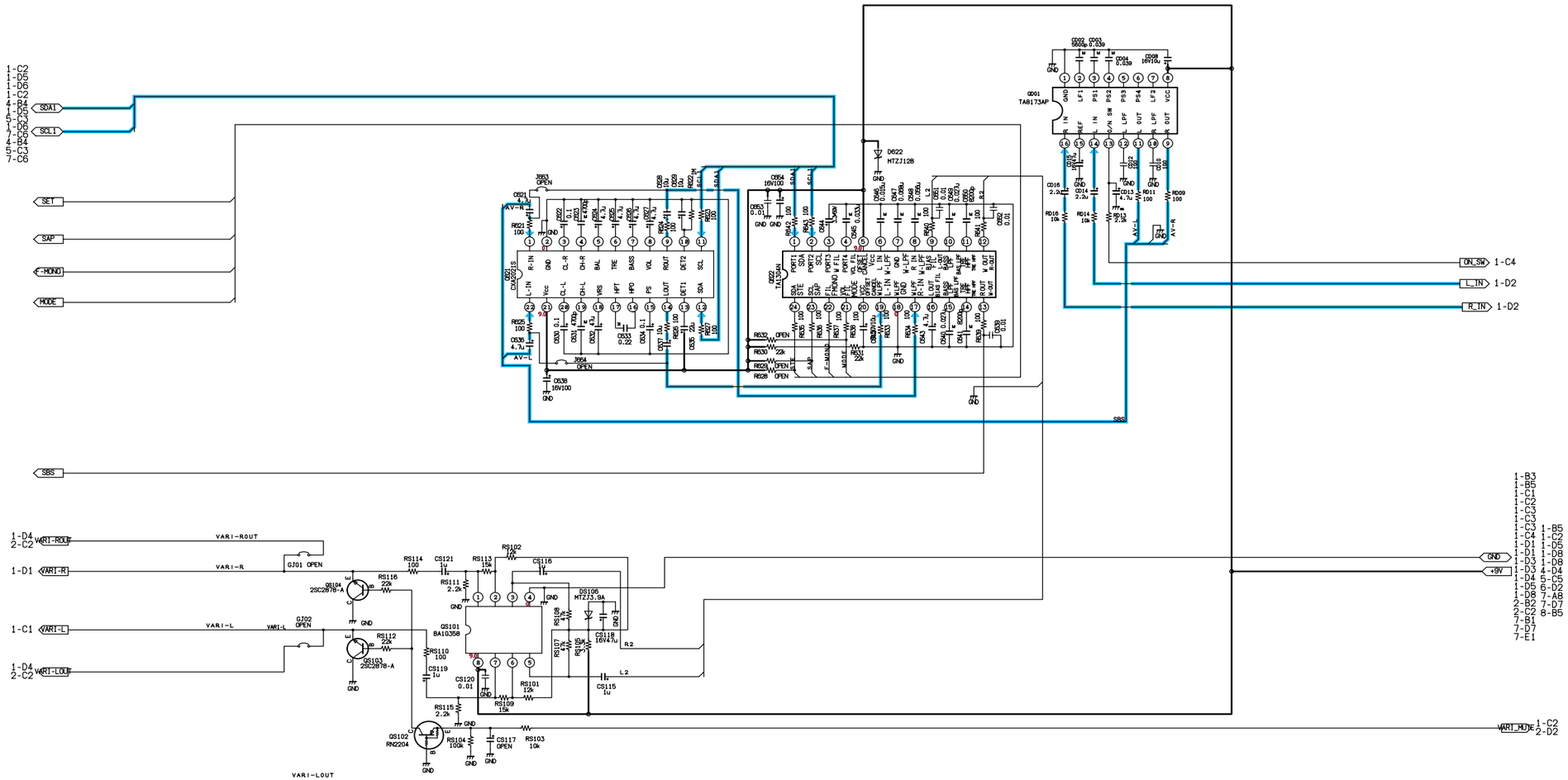


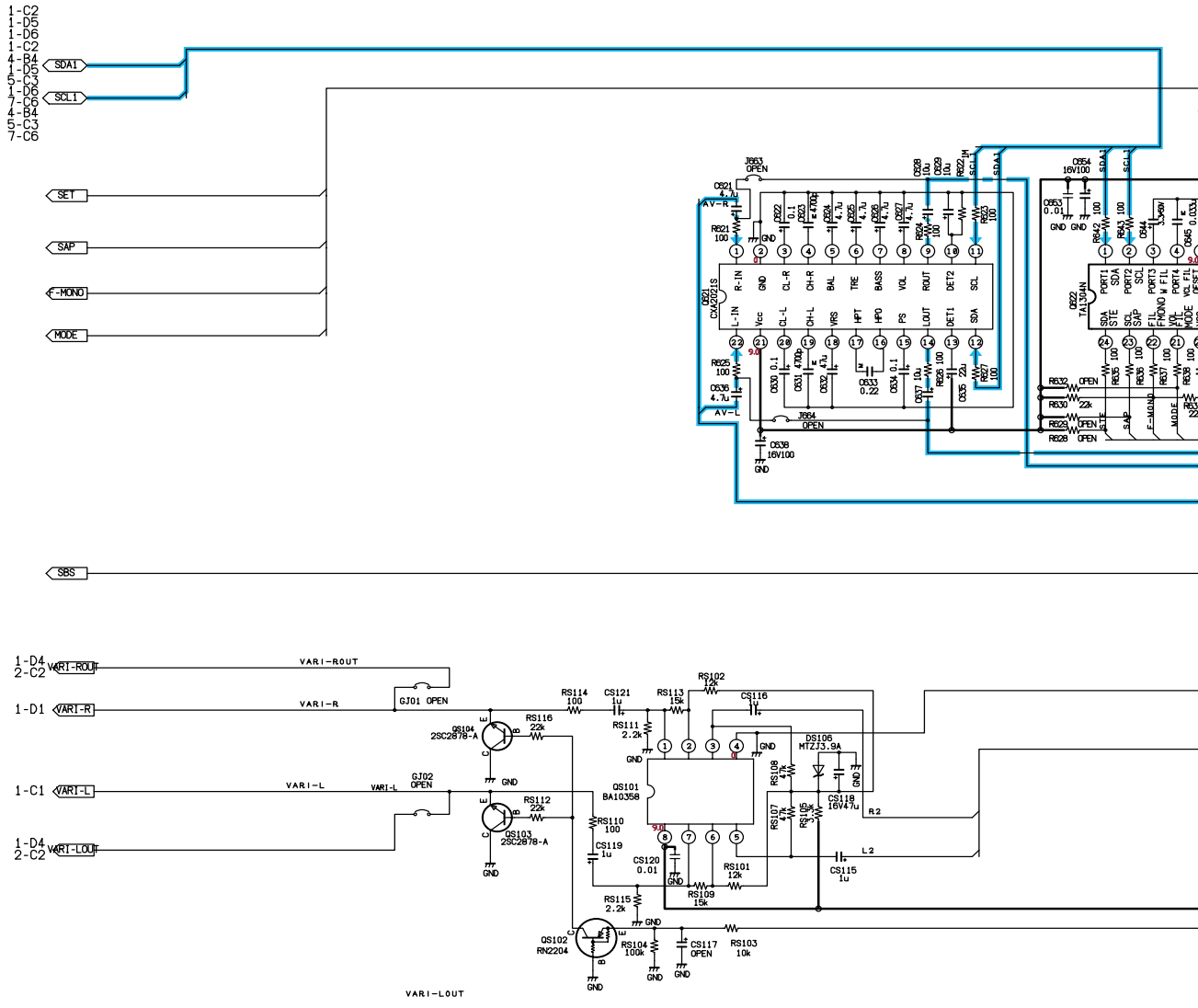
32AFX62
36AFX62
SIGNAL-SOUND
[SHEET-2/8]

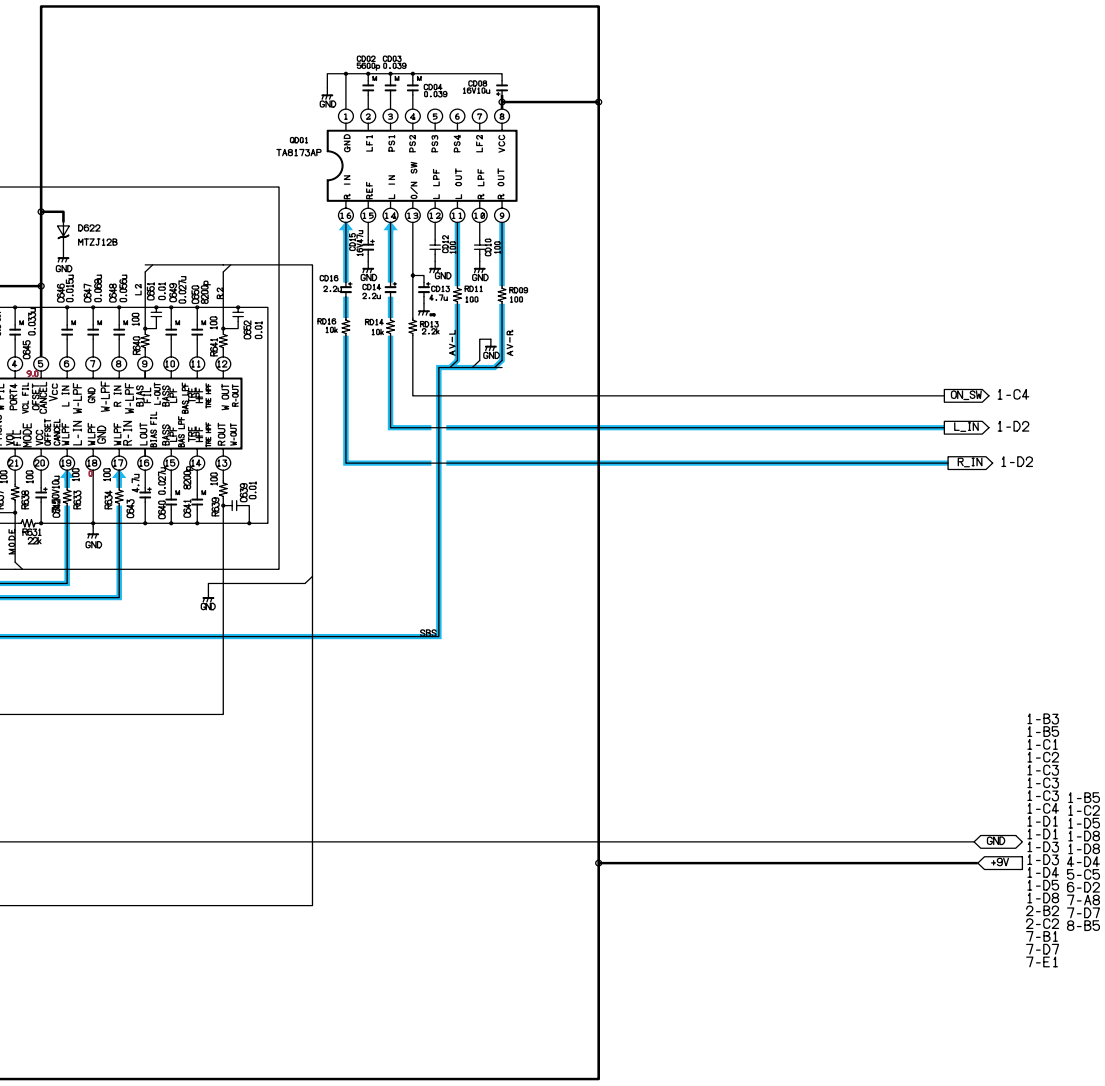

Audio_Vcc
GND
VARI-ROUT
VARI-LOUT
SBS
+12V
VARI_MUTE
MUTE
SPM
Audio Vcc
+25V
Q670
2SC2878-A
OPTION
Q672
2SC2878-A
GJ120 SHORT
M612A
OPEN
M612B
OPEN
Q612
KTA1266Y/2SA1015Y
D612
1SS133/1SS120-7
D613
1SS133/1SS120-7
D614
1SS133/1SS120-7
D611
1SS133/1SS120-7
25V
SBS-1



32AFX62
36AFX62
SIGNAL-SOUND
[SHEET-2/8]

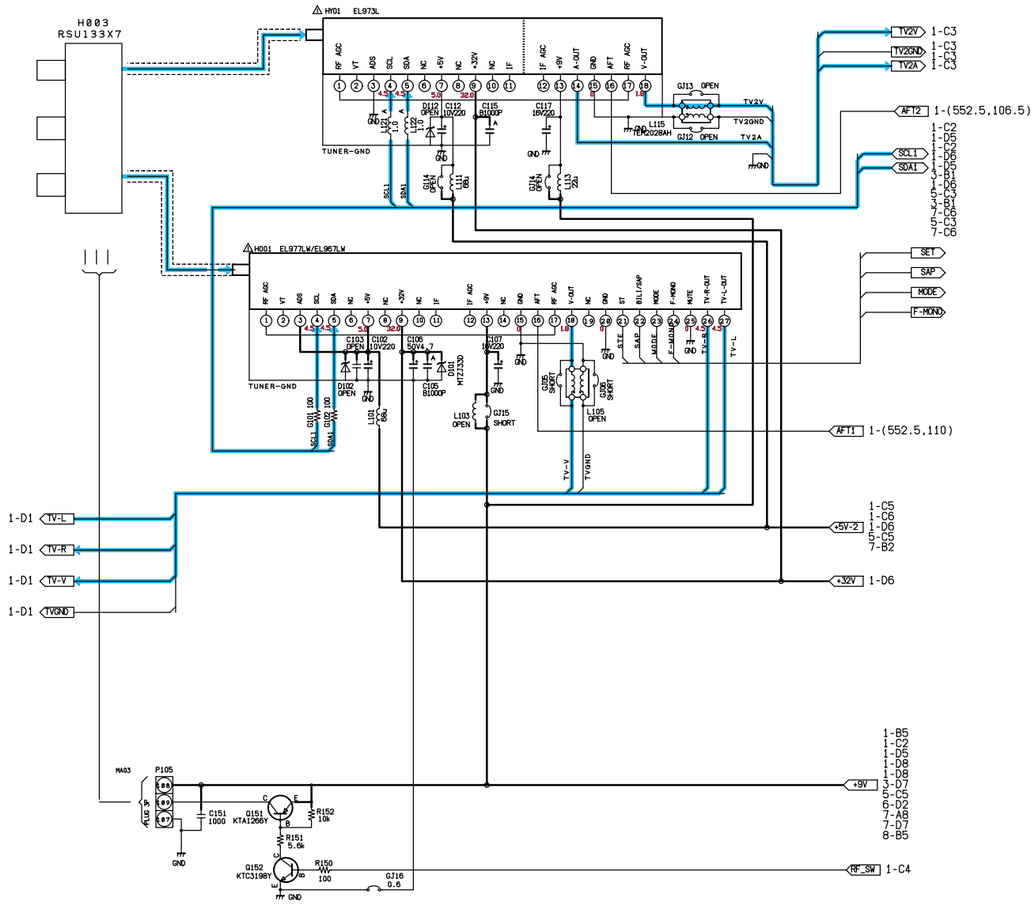

SDAT
SCLT
SET
SAP
F-MONO
MODE
SBS
VARI-ROUT
VARI-R
VARI-L
VARI-LOUT
GJ01 OPEN
GJ02 OPEN
QS104 2SC2878-A
QS103 2SC2878-A
QS101 BA10358
QS102 RN2204
D622 MTZJ12B
DS106 MTZJ3.9A
QD01 TA8173AP
QD02 TA2126AN
QD03 CXA1619S
ON_SW
L_IN
R_IN
GND
+9V
VARI_MUTE
VARI-LOUT
32AFX62
36AFX62
SIGNAL-SOUND-2
[SHEET-3/8]


1-C2
1-D5
1-D6
1-C2
4-B4
1-D5
5-C3
1-D6
7-C6
4-B4
5-C3
7-C6
SDA1
SCL1
SET
SAP
F-MONO
MODE
SBS
1-D4
2-C2
VARI-ROUT
1-D1
VARI-R
1-C1
VARI-L
1-D4
2-C2
VARI-LOUT
GJ01 OPEN
GJ02 OPEN
QS104 2SC2878-A
QS103 2SC2878-A
QS101 BA10358
QS102 RN2204
DS106 MTZJ3.9A
J863 OPEN
J864 OPEN
AV-R
AV-L
GND
16V100
OPEN

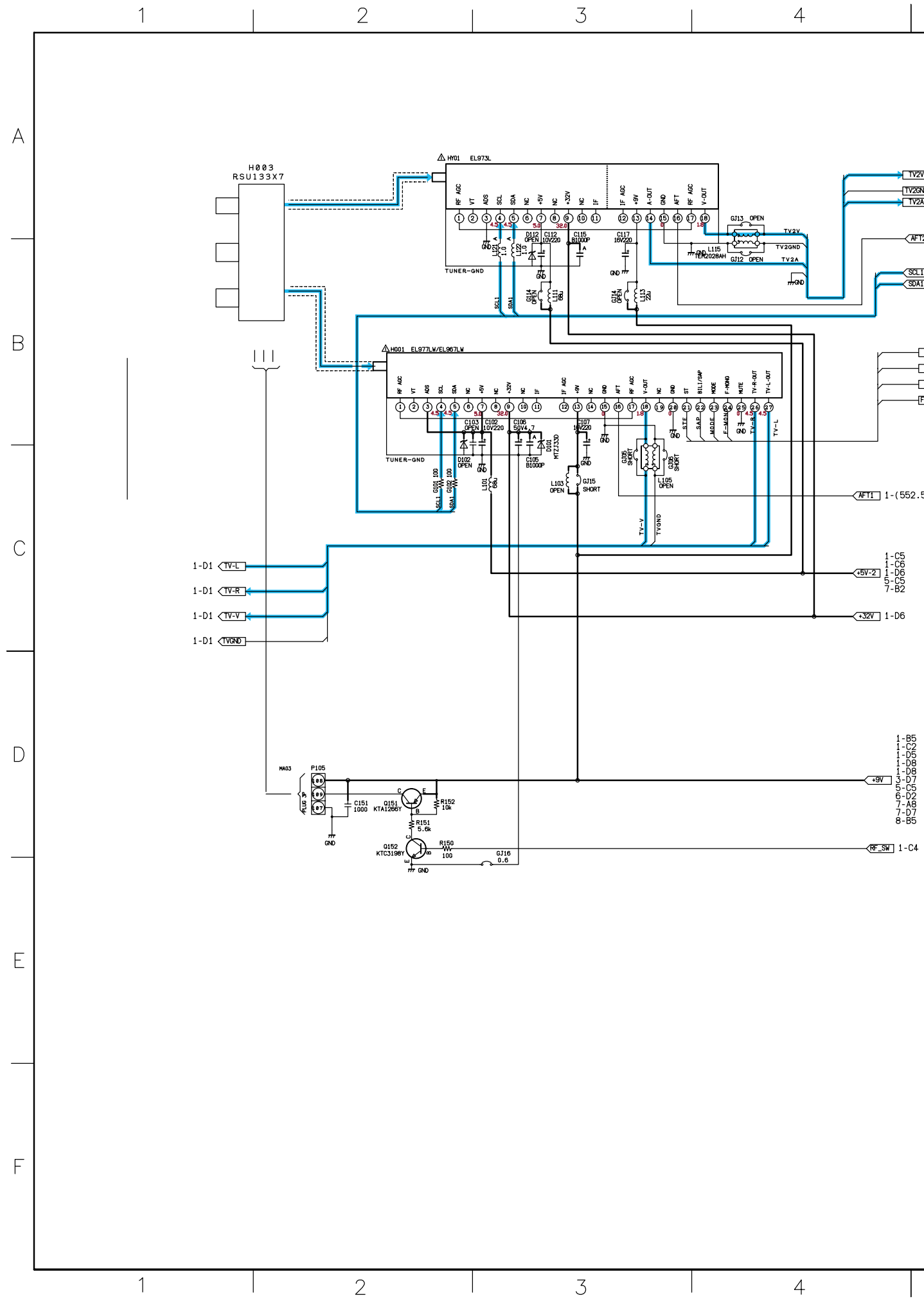


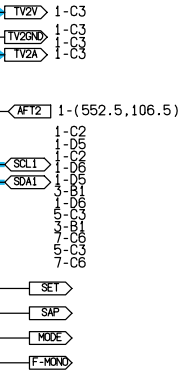
32AFX62
36AFX62

SIGNAL-SOUND-2
[SHEET-3/8]



32AFX62
36AFX62
SIGNAL-TUNER/IF
[SHEET-4/8]


H003
RSU133X7
H001 EL973L
TUNER-GND
H001 EL977LW/EL967LW
TUNER-GND
TV2V
TV2GND
TV2A
AFT2
SCL1
SDA1
AFT1
1-(552.5
1-D1 TV-L
1-D1 TV-R
1-D1 TV-V
1-D1 TVGND
+5V-2
1-C5
1-C6
1-D6
5-C5
7-B2
+32V
1-D6
+9V
1-B5
1-C2
1-D5
1-D8
3-D7
5-C5
6-D2
7-A8
7-D7
8-B5
RF_SW
1-C4
MA03
P105
GND



552.5,110)

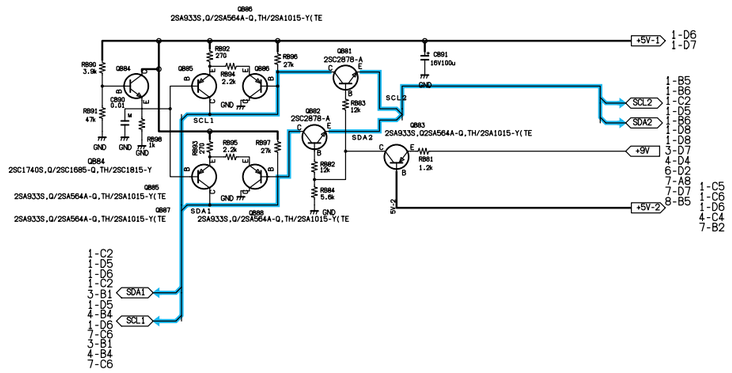
5
6
6
5
2

6

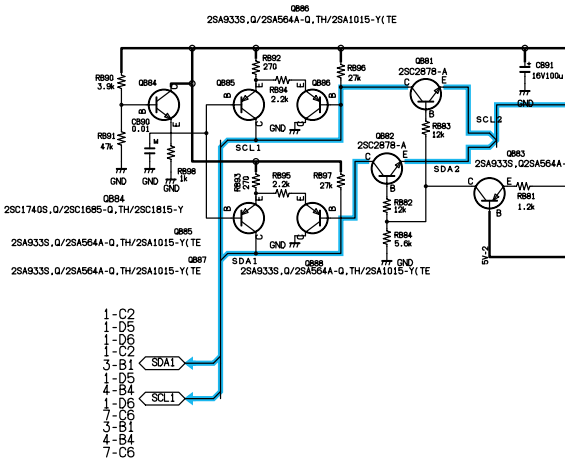
-B5
-C2
-D5
-D8
-D8
-D7
-C5
-D2
-A8
-D7
-B5

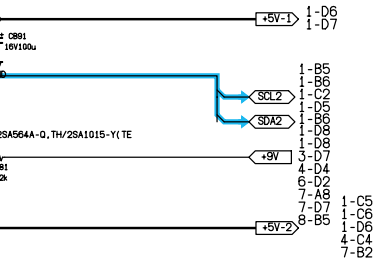
1-C4

32AFX62
36AFX62
SIGNAL-TUNER/IF
[SHEET-4/8]

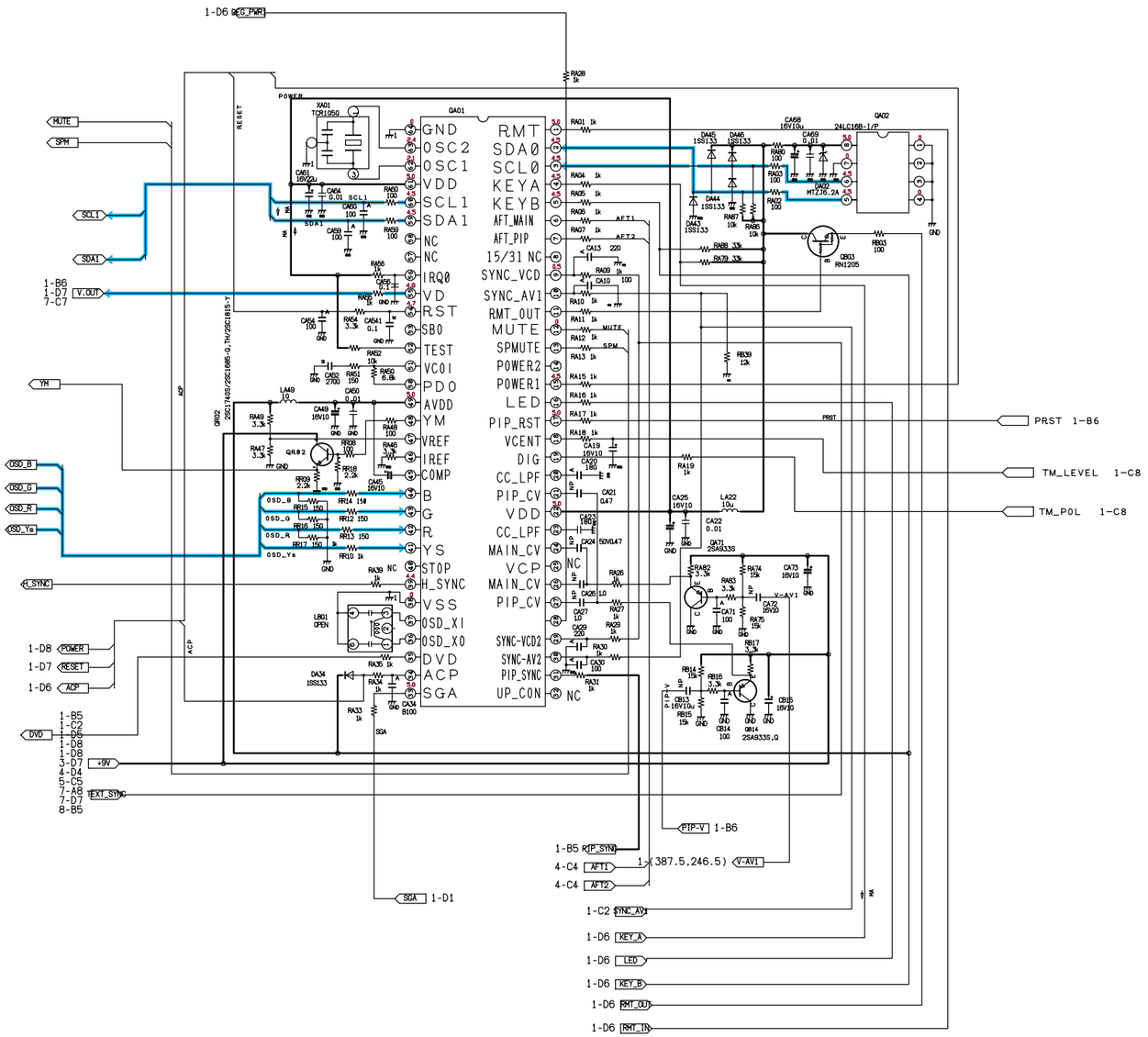


32AFX62
36AFX62
SIGNAL-MICON-2
[SHEET-5/8]

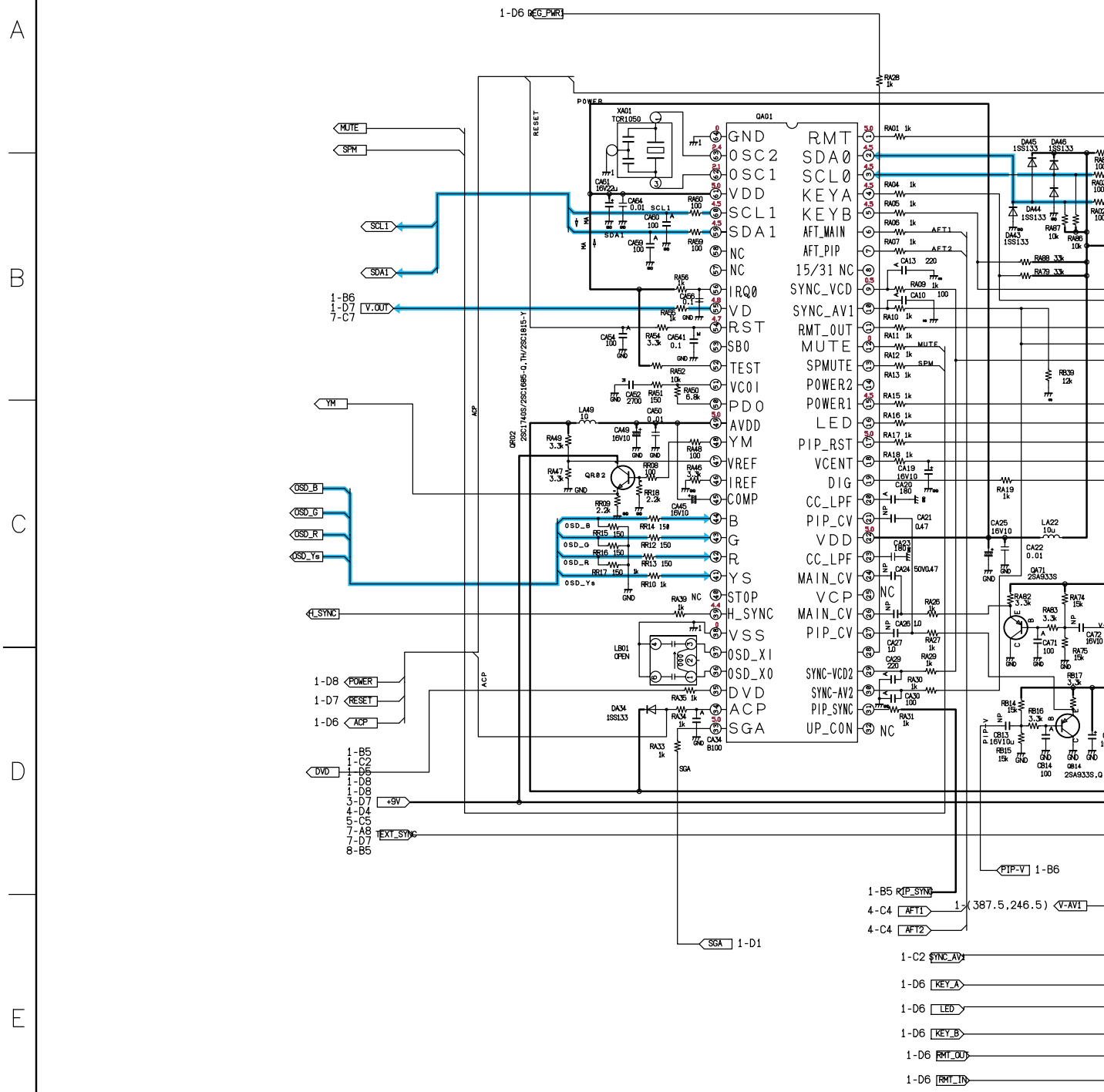

Q886
2SA933S,Q/2SA564A-Q,TH/2SA1015-Y(TE
R892
270
R896
27k
Q881
2SC2878-A
C991
16V100u
R890
3.9k
Q884
Q885
R894
2.2k
Q886
GND
C890
0.01
R891
4.7k
R898
1k
SCL1
R883
12k
SCL2
Q882
2SC2878-A
Q883
2SA933S,Q2SA564A-
SDA2
R893
2.2k
R895
2.2k
R897
27k
R881
1.2k
Q884
2SC1740S,Q/2SC1685-Q,TH/2SC1815-Y
R882
12k
Q885
2SA933S,Q/2SA564A-Q,TH/2SA1015-Y(TE
R884
5.6k
5V-2
Q887
2SA933S,Q/2SA564A-Q,TH/2SA1015-Y(TE
SDA1
Q888
2SA933S,Q/2SA564A-Q,TH/2SA1015-Y(TE
1-C2
1-D5
1-D6
1-C2
3-B1
1-D5
4-B4
1-D6
7-C6
3-B1
4-B4
7-C6
SDA1
SCL1

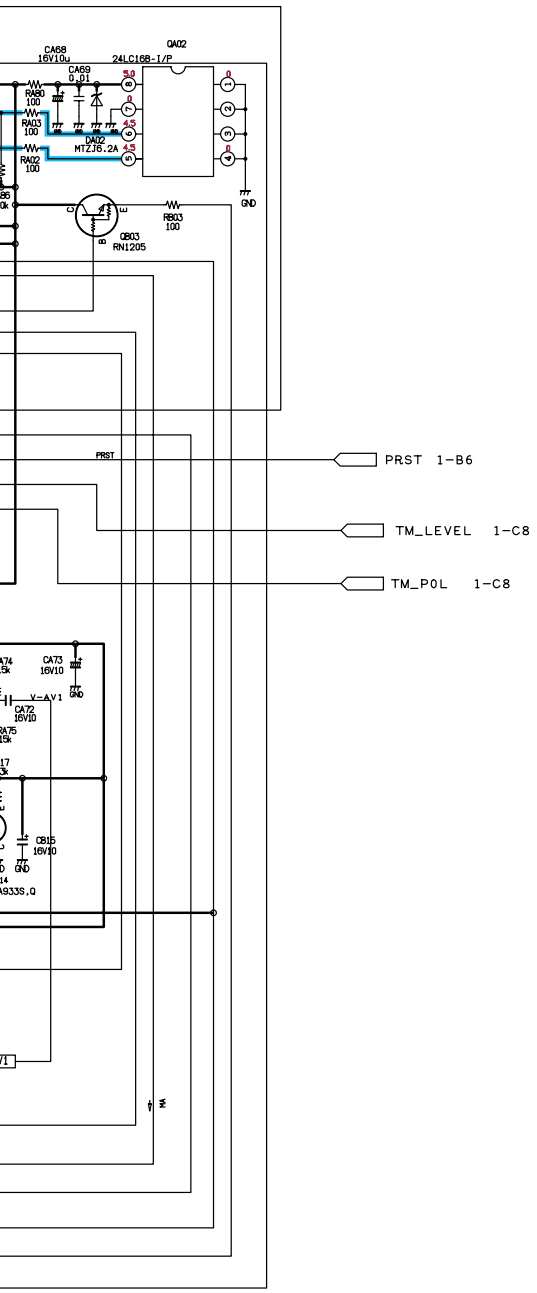


32AFX62
36AFX62
SIGNAL-MICON-2
[SHEET-5/8]

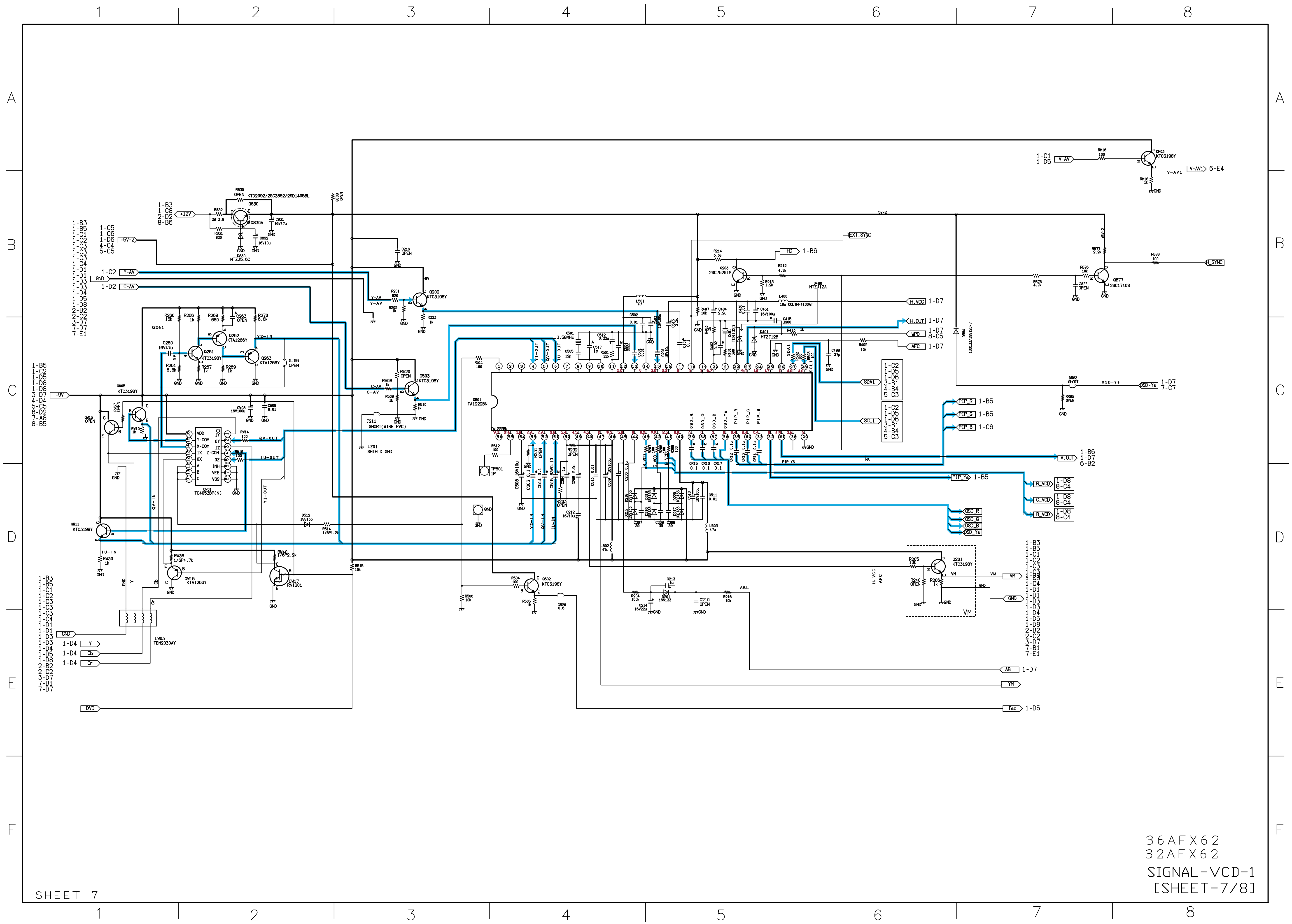


32AFX62
36AFX62
SIGNAL-MICON-1
[SHEET-6/8]

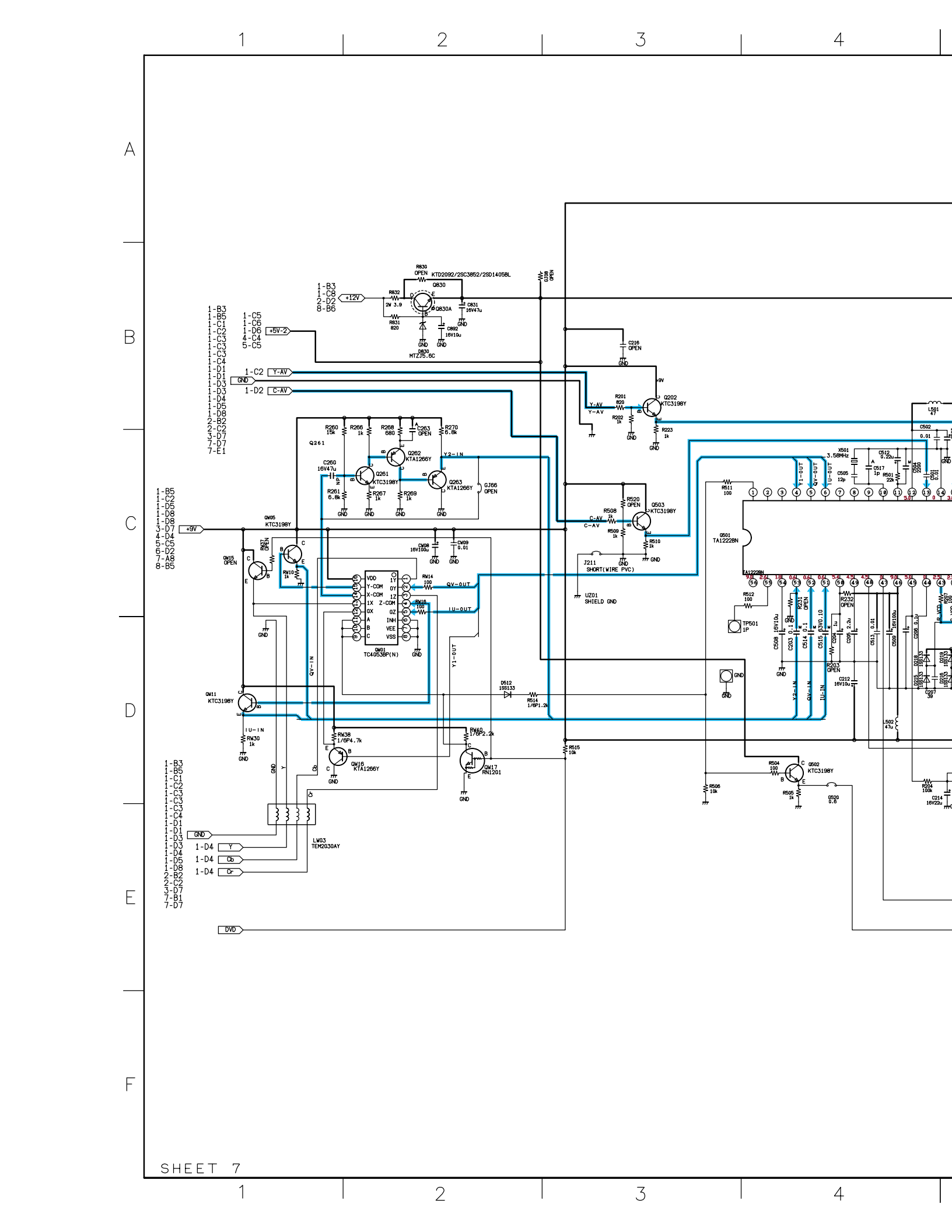

1-D6 REG_PWR
POWER
XA01
TCR1050
QA01
GND
OSC2
OSC1
VDD
SCL1
SDA1
NC
NC
IRQ0
VD
RST
SB0
TEST
VCOI
PDO
AVDD
YM
VREF
IREF
COMP
B
G
R
YS
STOP
H_SYNC
VSS
OSD_XI
OSD_XO
DVD
ACP
SGA
RMT
SDA0
SCL0
KEYA
KEYB
AFT_MAIN
AFT_PIP
15/31 NC
SYNC_VCO
SYNC_AV1
RMT_OUT
MUTE
SPMUTE
POWER2
POWER1
LED
PIP_RST
VCENT
DIG
CC_LPF
PIP_CV
VDD
CC_LPF
MAIN_CV
VCP
MAIN_CV
PIP_CV
SYNC-VCO2
SYNC-AV2
PIP_SYNC
UP_CON
NC
MUTE
SPM
SCL1
SDA1
1-B6
1-D7
7-C7
V.OUT
YM
OSD_B
OSD_G
OSD_R
OSD_Ys
H_SYNC
1-D8 POWER
1-D7 RESET
1-D6 ACP
DVD
1-B5
1-C2
1-D5
1-D8
1-D8
3-D7
4-D4
5-C5
7-A8
7-D7
8-B5
+9V
TEXT_SYNC
RESET
ACP
SGA 1-D1
PIP-V 1-B6
1-B5 PIP_SYNC
4-C4 AFT1
4-C4 AFT2
1-(387.5,246.5) V-AV1
1-C2 SYNC_AV1
1-D6 KEY_A
1-D6 LED
1-D6 KEY_B
1-D6 RMT_OUT
1-D6 RMT_IN

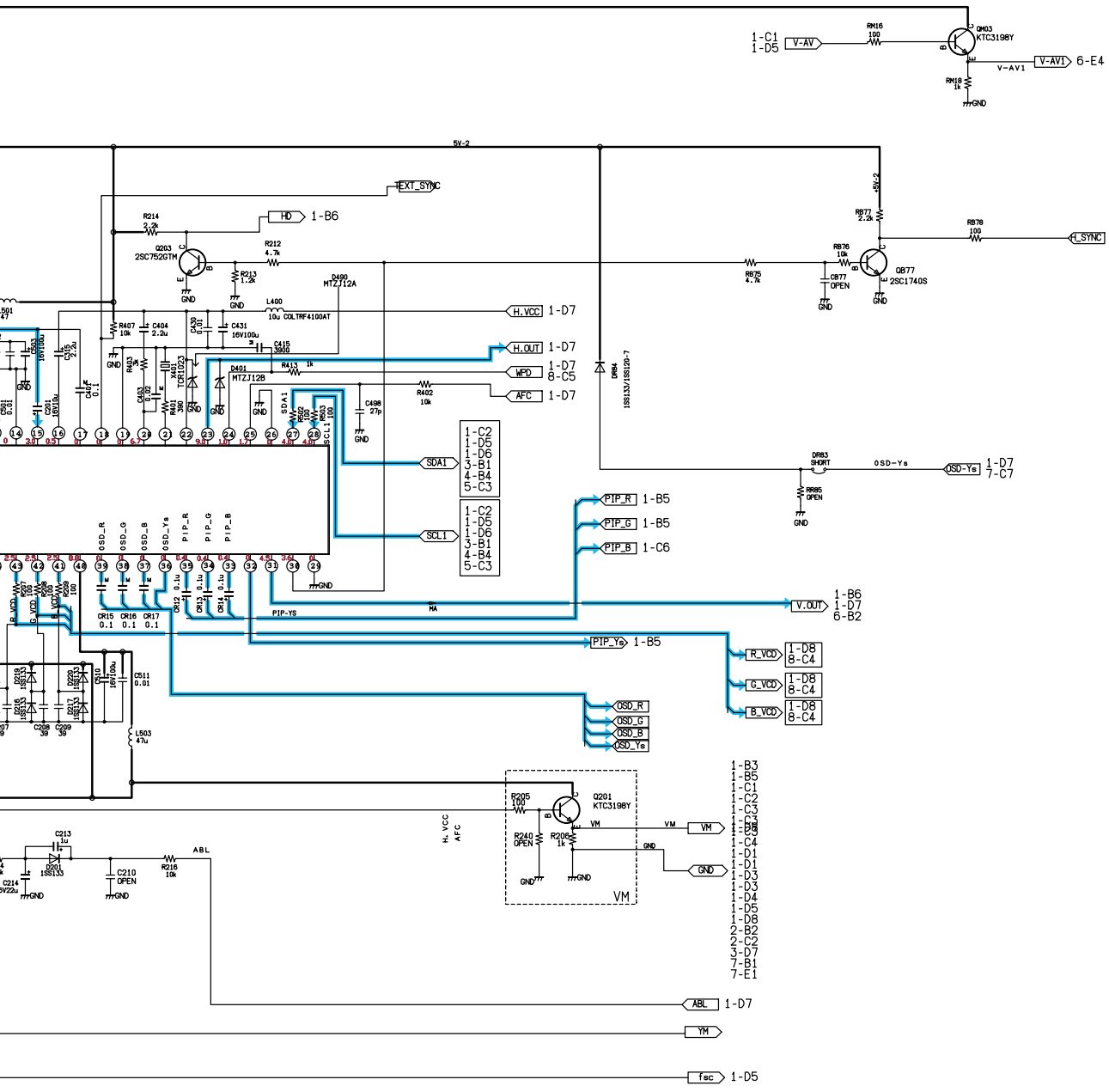


32AFX62
36AFX62
SIGNAL-MICON-1
[SHEET-6/8]



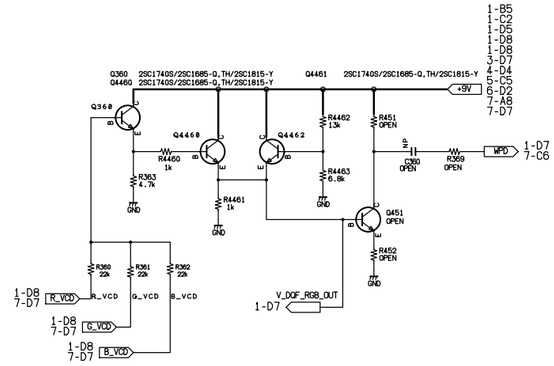
+12V
+5V-2
Y-AV
C-AV
GND
+9V
V-AV
V-AV1 6-E4
H_SYNC
EXT_SYNC
HD 1-B6
H.VCC 1-D7
H.OUT 1-D7
WPD 1-D7 8-C5
AFC 1-D7
SDA1
SCL1
OSD-Ys 1-D7 7-C7
PIP_R 1-B5
PIP_G 1-B5
PIP_B 1-C6
V.OUT 1-B6 1-D7 6-B2
PIP_Ys 1-B5
R_VCD 1-D8 8-C4
G_VCD 1-D8 8-C4
B_VCD 1-D8 8-C4
OSD_R
OSD_G
OSD_B
OSD_Ys
VM
ABL 1-D7
YM
fsc 1-D5
Y 1-D4
Cb 1-D4
Cr 1-D4
DVD
Q501 TA1222BN
QW01 TC4053BP(N)
Q830 KTD2092/2SC3852/2SD1405BL
Q202 KTC3198Y
Q503 KTC3198Y
Q203 2SC752GTM
QB77 2SC1740S
QM03 KTC3198Y
Q201 KTC3198Y
Q502 KTC3198Y
Q261 KTC3198Y
Q262 KTA1266Y
Q263 KTA1266Y
QW05 KTC3198Y
QW11 KTC3198Y
QW16 KTA1266Y
QW17 RN1201
LW03 TEM2030AY
X501 3.58MHz
X401 TCR1023
D830 MTZJ5.6C
D490 MTZJ12A
D401 MTZJ12B
DR84 1SS133/1SS120-7
J211 SHORT(WIRE PVC)
UZ01 SHIELD GND
TP501 1P
SHEET 7
36AFX62
32AFX62
SIGNAL-VCD-1
[SHEET-7/8]

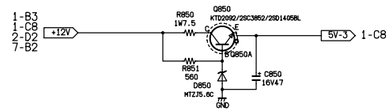

1 2 3 4
A B C D E F
SHEET 7
+12V
+5V-2
+9V
GND
DVD
Y-AV
C-AV
Y2-IN
QV-IN
IU-IN
Y1-OUT
QV-OUT
IU-OUT
Q830
KTD2092/2SC3852/2SD1405BL
Q830A
D830
MTZJ5.6C
Q202
KTC3198Y
Q261
KTC3198Y
Q262
KTA1266Y
Q263
KTA1266Y
Q503
KTC3198Y
Q501
TA1222BN
Q502
KTC3198Y
QW01
TC4053BP(N)
QW05
KTC3198Y
QW11
KTC3198Y
QW15
QW16
KTA1266Y
QW17
RN1201
X501
3.58MHz
J211
SHORT(WIRE PVC)
UZ01
SHIELD GND
TP501
LW03
TEM2030AY



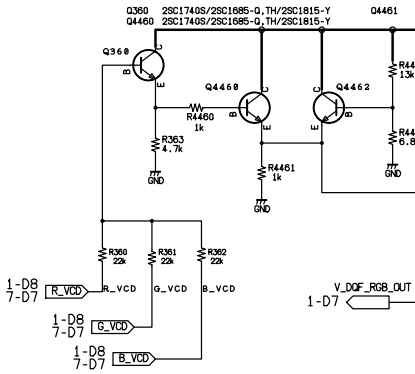
36AFX62
32AFX62

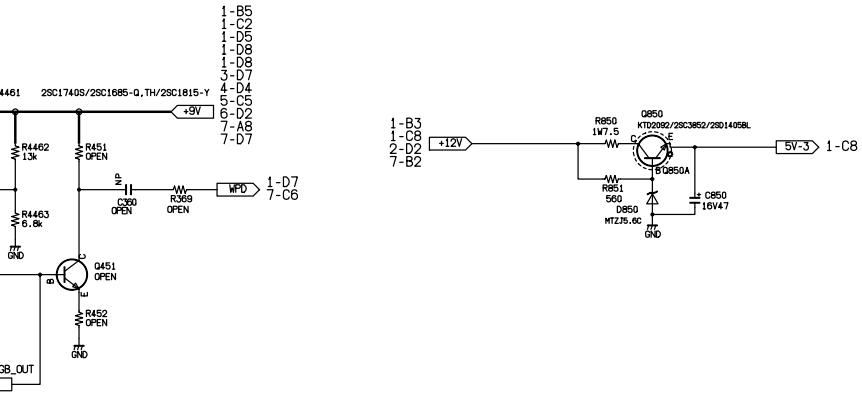
SIGNAL-VCD-1
[SHEET-7/8]



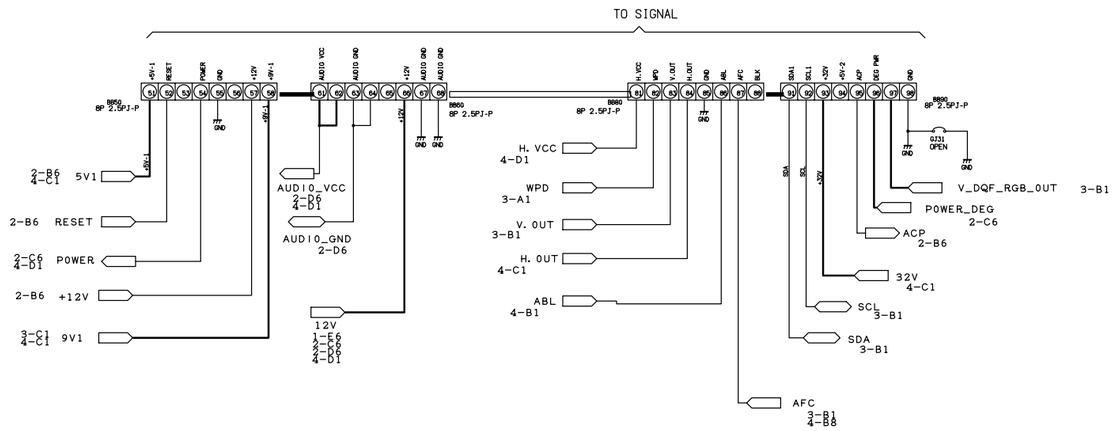


32AFX62
36AFX62
SIGNAL-VCD-2
[SHEET-8/8]


Q360 2SC1740S/2SC1685-Q,TH/2SC1815-Y
Q4460 2SC1740S/2SC1685-Q,TH/2SC1815-Y
Q4461
Q360
Q4460
Q4462
R4460
1k
R363
4.7k
R4461
1k
GND
R360
22k
R361
22k
R362
22k
1-D8
7-D7
R_VCD
G_VCD
B_VCD
V_DOF_RGB_OUT
1-D7

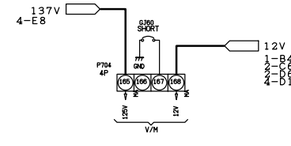


32AFX62
36AFX62
SIGNAL-VCD-2
[SHEET-8/8]

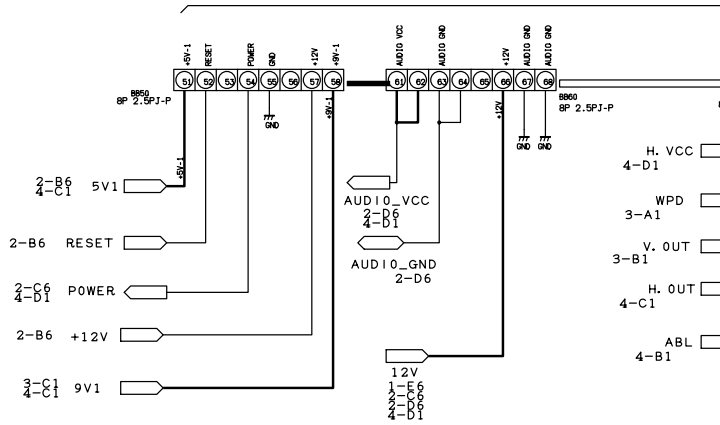


< DIFFERENCE LIST >

PART NO.	DISCRIPTION	36AFX61	32AFX61
U902	POW/DEF UNIT	PB9631E	PB9631F
T461	FBT	TFB4172AD	TFB4166BD
C442	CAPACITOR	315V0.62u	315V0.43u
C443	CAPACITOR	1500V8200p	1800V4700p
C444	CAPACITOR	1500V7500p	1800V0.01u
C467	CAPACITOR	630V0.047u	630V0.024u
L447	COIL	OPEN	TLN3516AH
C423	CAPACITOR	400V0.068u	400V0.039u
JP144	MEKKI WIRE	SHORT	OPEN



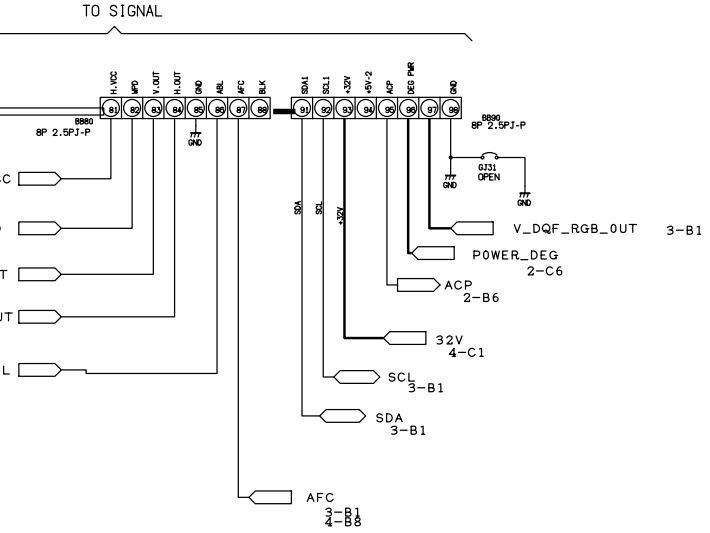
32AFX62
36AFX62
POWER/DEF-BANKAN
[SHEET-1/4]

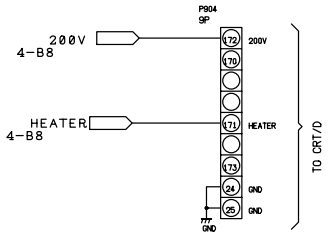


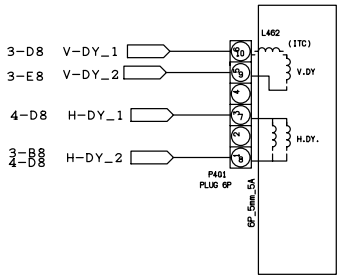
P901 1P
P902 1P
P903 1P
P904 1P

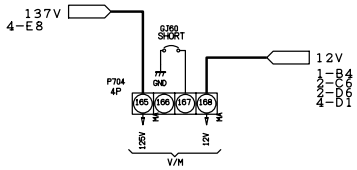
< DIFFERENCE LIST >

PART NO.	DISCRIPTION	36AFX61	32AFX61
U902	POW/DEF UNIT	PB9631E	PB9631F
T461	FBT	TFB4172AD	TFB4166BD
C442	CAPACITOR	315V0.62u	315V0.43u
C443	CAPACITOR	1500V8200p	1800V4700p
C444	CAPACITOR	1500V7500p	1800V0.01u
C467	CAPACITOR	630V0.047u	630V0.024u
L447	COIL	OPEN	TLN3516AH
C423	CAPACITOR	400V0.068u	400V0.039u
JP144	MEKKI WIRE	SHORT	OPEN

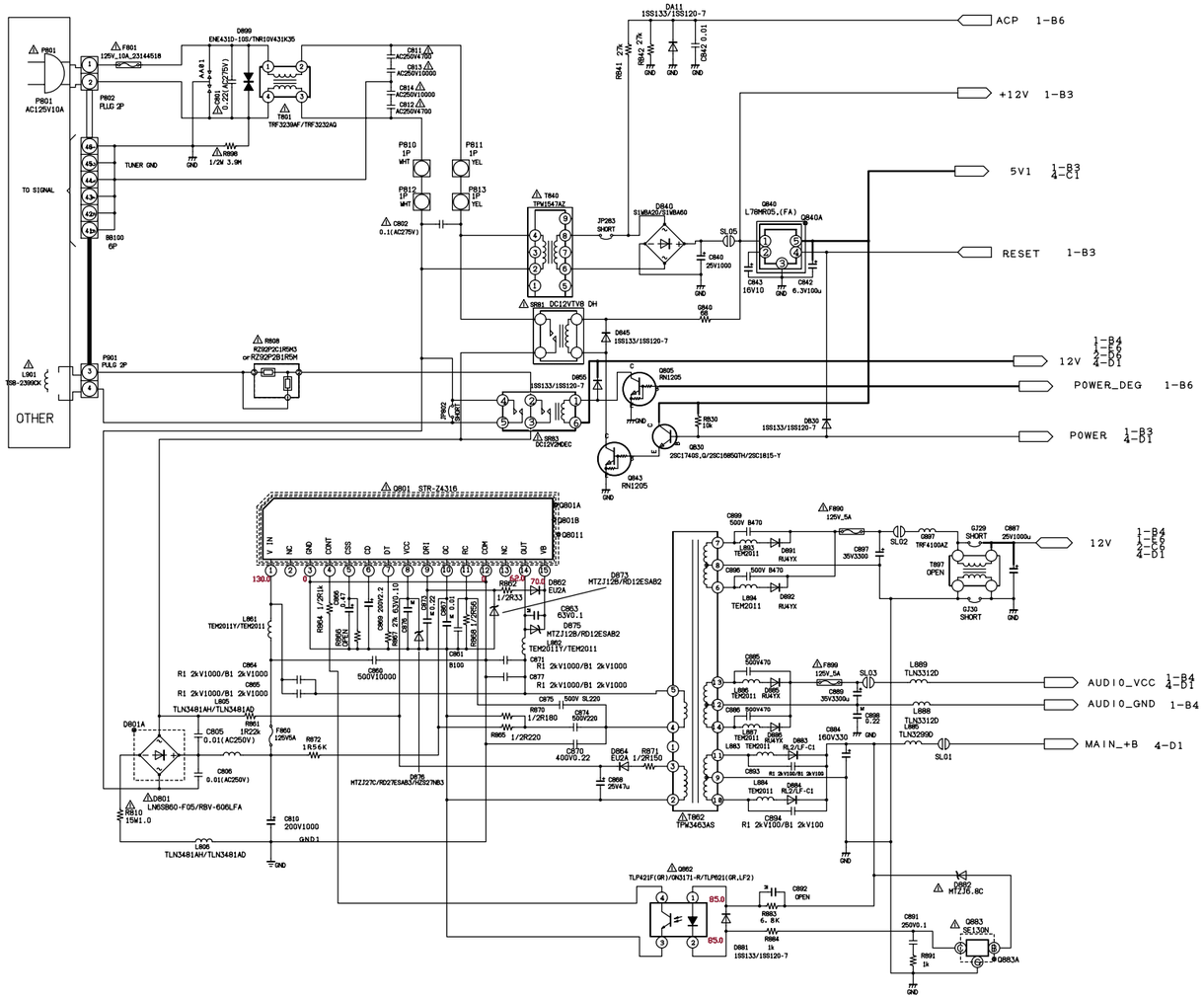




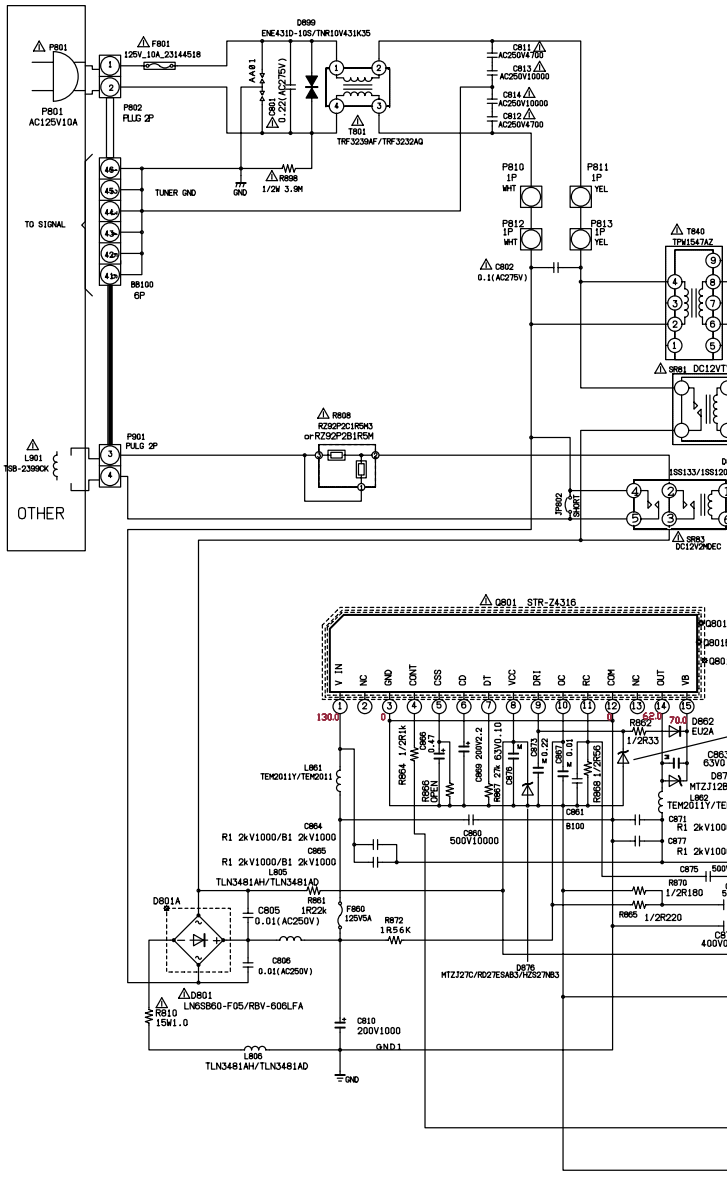


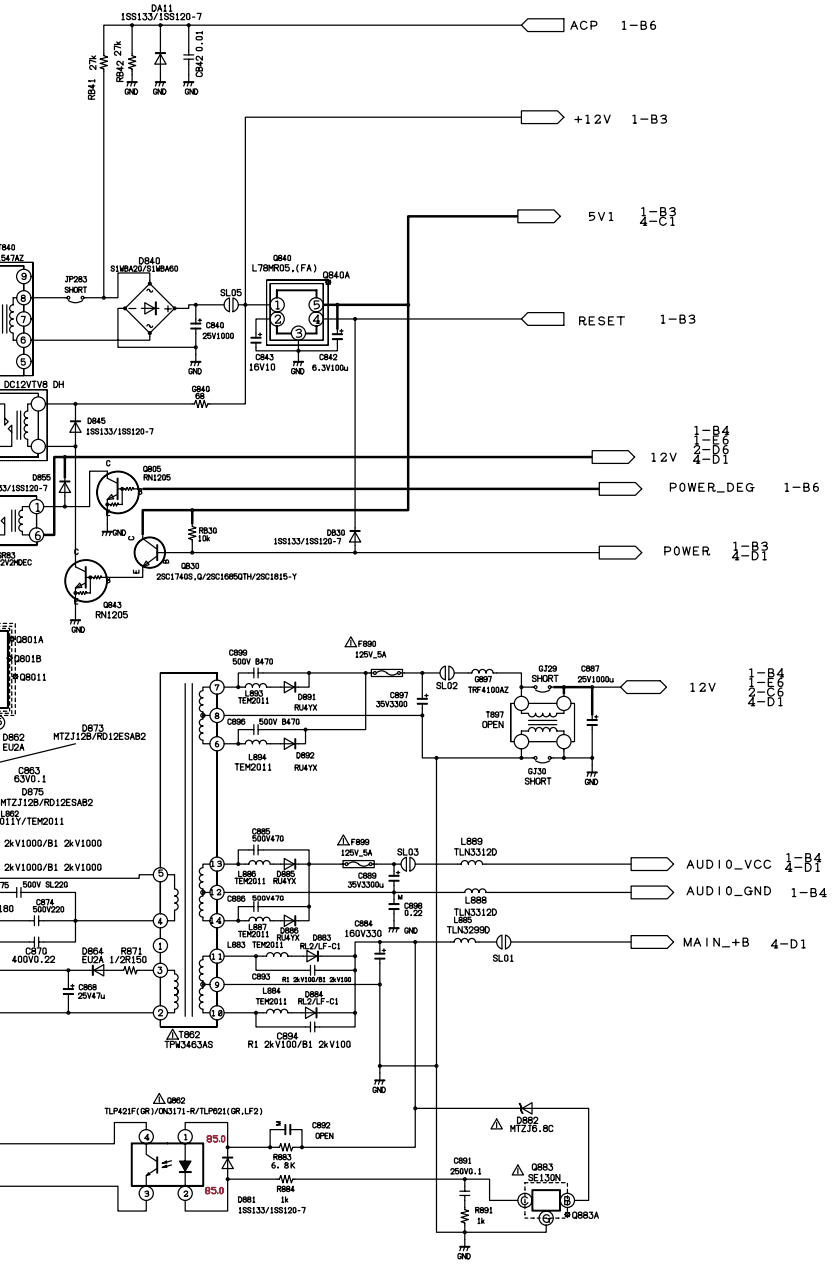


32AFX62
36AFX62
POWER/DEF-BANKAN
[SHEET-1/4]

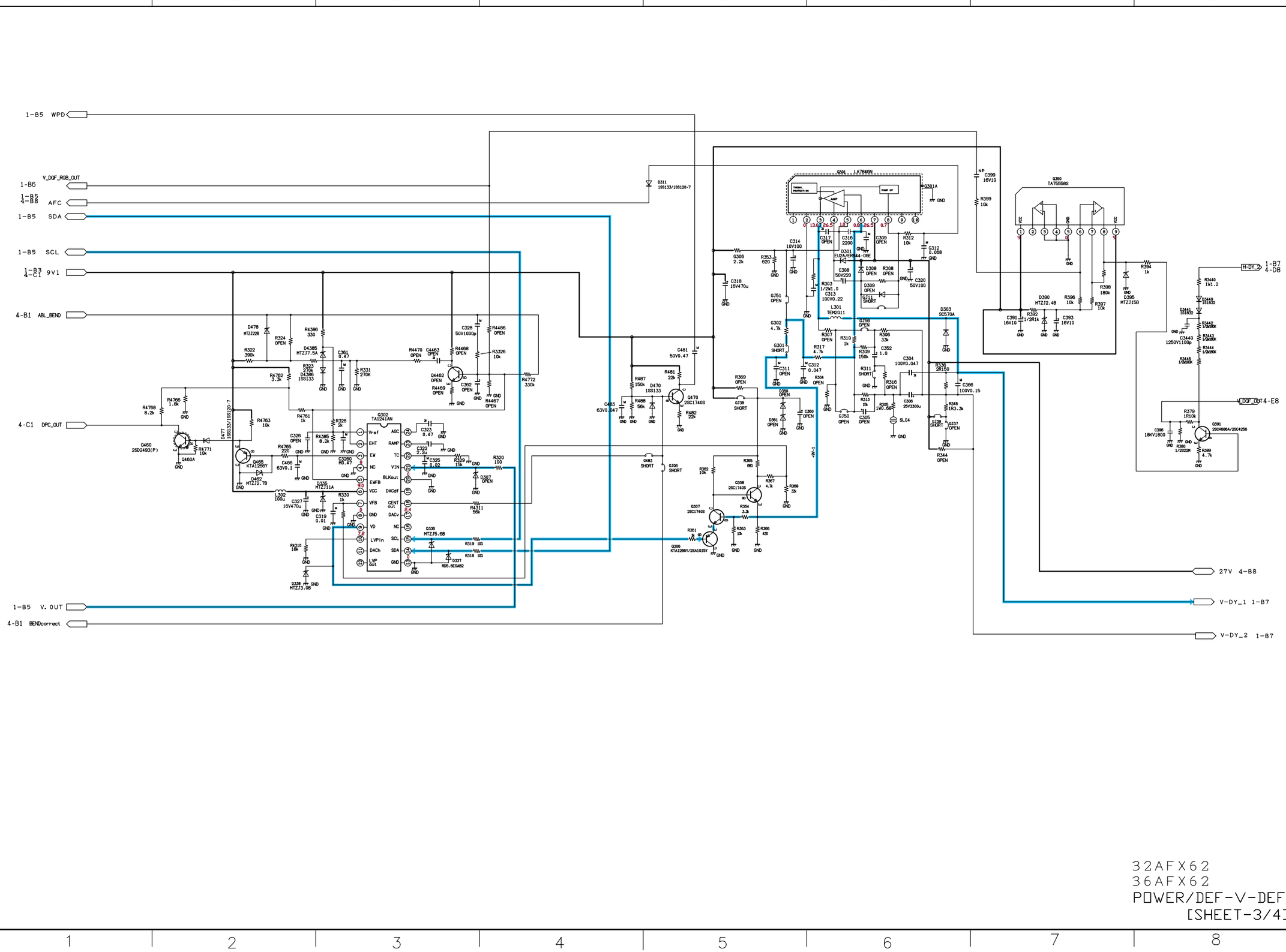


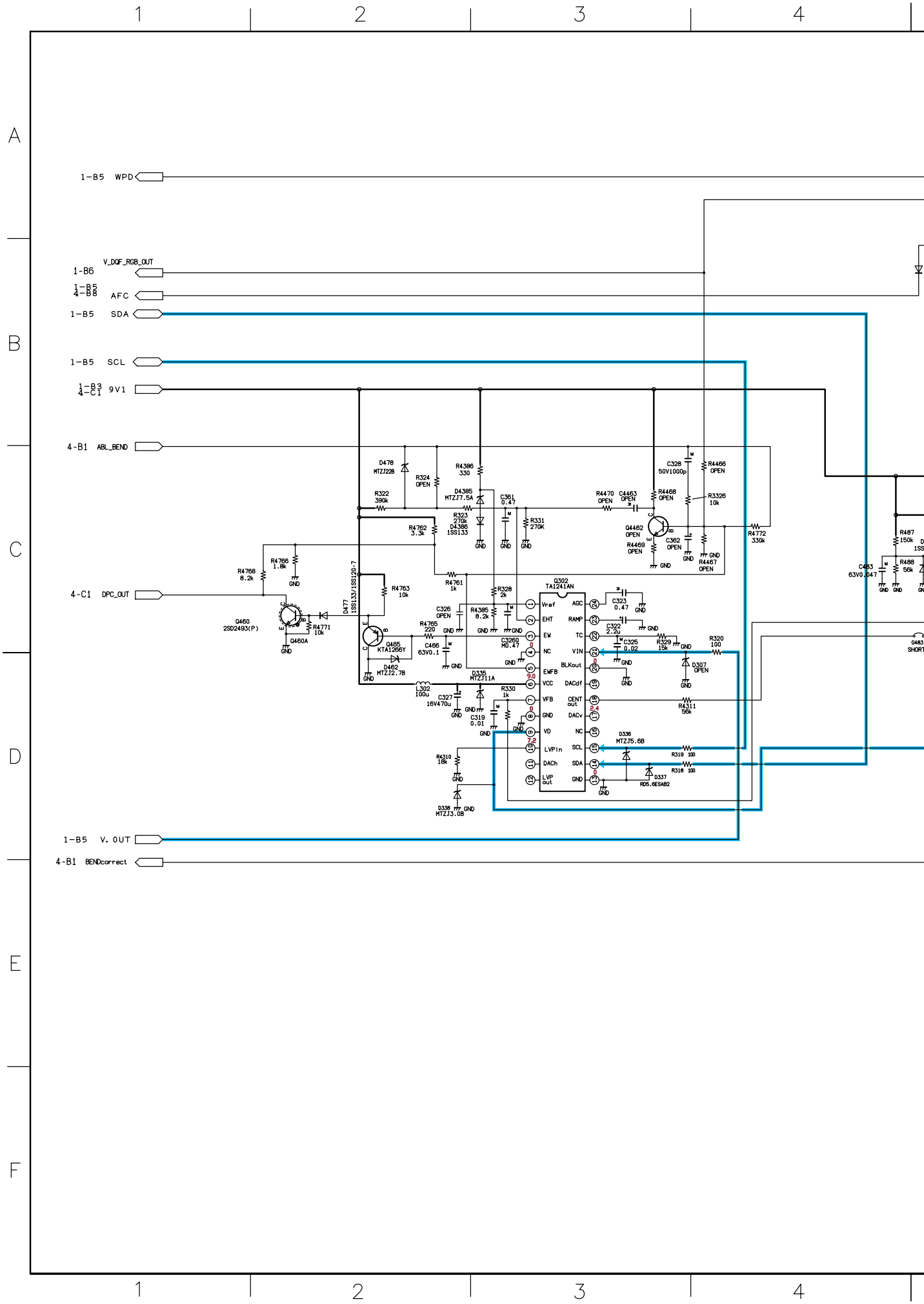
32AFX62
36AFX62
POWER/DEF-POWER
[SHEET-2/4]

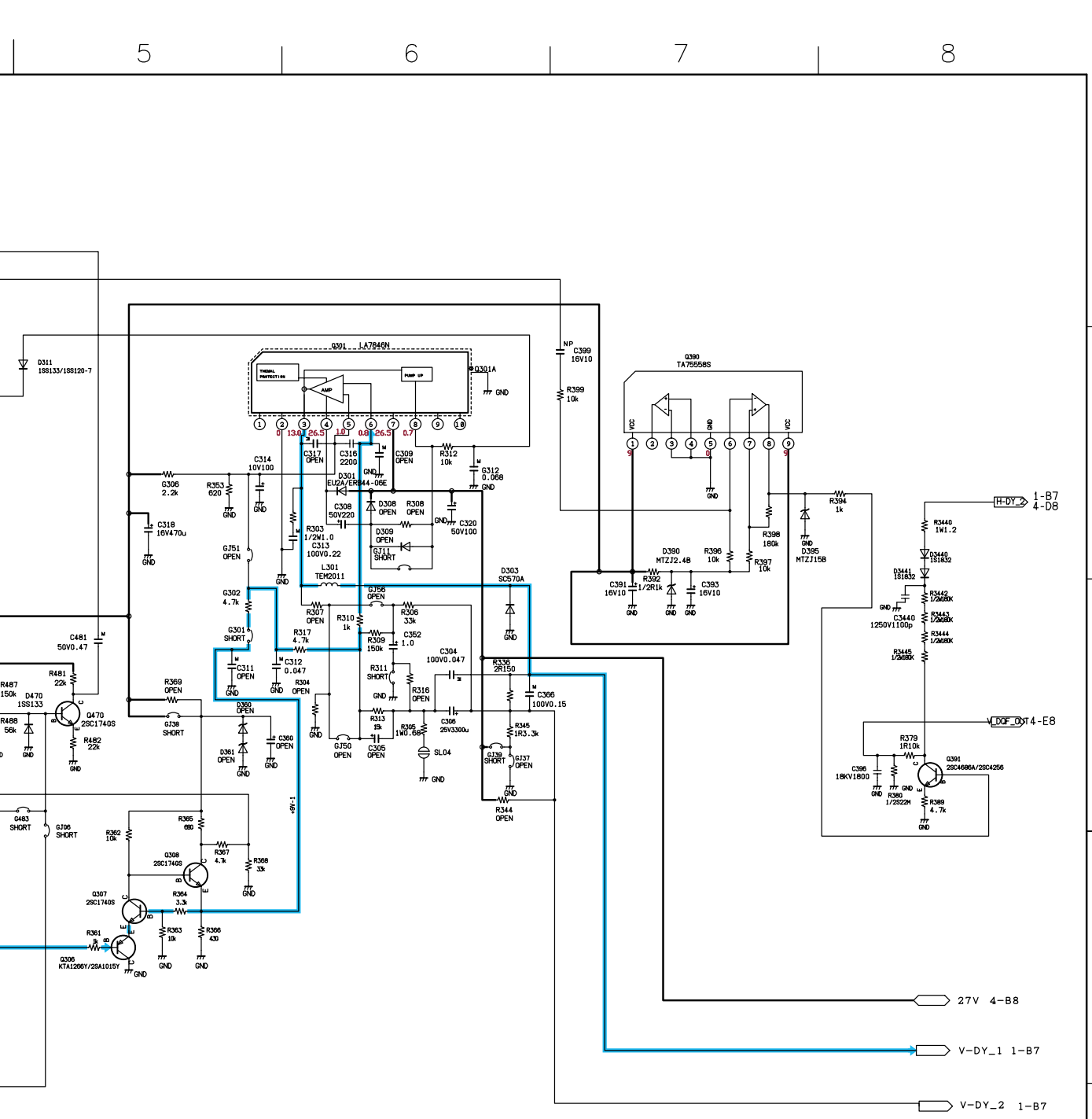

P801
AC125V10A
F801
125V_10A_23144518
P802
PLUG 2P
D899
ENE431D-10S/TNR10V431K35
C811
AC250V4700
C813
AC250V10000
C814
AC250V10000
C812
AC250V4700
T801
TRF3239AF/TRF3232AQ
R898
1/2W 3.9M
TUNER GND
GND
TO SIGNAL
BB100
6P
P810
1P
WHT
P811
1P
YEL
P812
1P
WHT
P813
1P
YEL
C802
0.1(AC275V)
T840
TPW1547AZ
SR81 DC12VT
R808
RZ92P2C1R5M3
orRZ92P2B1R5M
P901
PLUG 2P
L901
TSB-2399DK
OTHER
JP802
SR83
DC12V2HDEC
D801 STR-Z4316
V IN
NC
GND
CONT
CSS
CD
DT
VCC
DR1
OC
RC
COM
NC
OUT
VB
130.0
0
62.0
70.0
D862
EU2A
R862
1/2R33
R864 1/2R1k
C866
0.47
C869 200V2.2
C868 27k 6.3V0.10
C867
0.22
C870
0.01
R868 1/2R56
R866
OPEN
R867
L861
TEM2011Y/TEM2011
C864
R1 2kV1000/B1 2kV1000
C865
R1 2kV1000/B1 2kV1000
C860
500V10000
B100
C861
L805
TLN3481AH/TLN3481AD
D801A
C805
0.01(AC250V)
R861
1R22k
F860
125V5A
R872
1R56K
C806
0.01(AC250V)
D876
MTZJ27C/RD27ESAB3/HZS27NB3
D801
LN6SB60-F05/RBV-606LFA
R810
15W1.0
C810
200V1000
GND1
L806
TLN3481AH/TLN3481AD
GND
C871
R1 2kV1000
C877
R1 2kV1000
C875
R870
1/2R180
R865 1/2R220



32AFX62
36AFX62
POWER/DEF-POWER
[SHEET-2/4]


1-B5 WPD
V_DOF_RGB_OUT
1-B6
1-B5 4-B8
AFC
1-B5 SDA
1-B5 SCL
1-B3 4-C1 9V1
4-B1 ABL_BEND
4-C1 DPC_OUT
1-B5 V. OUT
4-B1 BENDcorrect
D311 1SS133/1SS120-7
Q391 LA7840N
Q391A
Q390 TA75558S
Q302 TA1241AN
Vref
EHT
EW
NC
EWFB
VCC
VFB
GND
VD
LVPin
DACh
LVP out
AGC
RAMP
TC
VIN
BLKout
DACdf
CENT out
DACv
NC
SCL
SDA
GND
Q470 2SC1740S
Q307 2SC1740S
Q308 2SC1740S
Q306 KTA1266Y/2SA1015Y
Q465 KTA1266Y
Q450 2SD2493(P)
Q462 MTZJ2.7B
Q335 MTZJ11A
D338 MTZJ3.0B
D337 MTZJ5.6B
D337 RD5.6ESA92
D478 MTZJ22B
D4385 MTZJ7.5A
D4386 1SS133
D477 1SS133/1SS120-7
D470 1SS133
D390 MTZJ2.4B
D395 MTZJ15B
D303 SC570A
D301 EU2A/ER844-06E
L301 TEM2011
L302 100u
H-DY 1-B7 4-D8
V_DOF_OUT 4-E8
27V 4-B8
V-DY_1 1-B7
V-DY_2 1-B7
32AFX62
36AFX62
POWER/DEF-V-DEF
[SHEET-3/4]


1-B5 WPD
V_DQF_RGB_OUT
1-B6
1-B5
4-B8 AFC
1-B5 SDA
1-B5 SCL
1-B3
4-C1 9V1
4-B1 ABL_BEND
4-C1 DPC_OUT
1-B5 V. OUT
4-B1 BENDcorrect
Q302
TA1241AN
Vref
EHT
EW
NC
VCC
VFB
GND
VD
LVPin
DACh
LVP out
AGC
RAMP
TC
VIN
BLKout
DACdf
CENT out
DACv
NC
SCL
SDA
GND
D478 MTZJ22B
R324 OPEN
R322 390k
R4386 330
D4385 MTZJ7.5A
R323 270k
D4386 1SS133
C361 0.47
R331 270K
R4762 3.3k
R4761 1k
R328 2k
C326 OPEN
R4385 8.2k
C3266 M0.47
R4765 220
C466 63V0.1
D462 MTZJ2.7B
D335 MTZJ11A
L302 100u
C327 16V470u
C319 0.01
R330 1k
R4310 18k
D338 MTZJ3.0B
R4768 8.2k
R4766 1.8k
Q460 2SD2493(P)
Q460A
R4771 10k
D477 1SS133/1SS120-7
R4763 10k
Q465 KTA1266Y
C328 50V1000p
R4466 OPEN
R4470 OPEN
C4463 OPEN
R4468 OPEN
R3326 10k
Q4462 OPEN
R4469 OPEN
C362 OPEN
R4467 OPEN
R4772 330k
C323 0.47
C322 2.2u
C325 0.02
R329 15k
R320 100
D307 OPEN
R4311 56k
D336 MTZJ5.6B
D337 RD5.6ESAB2
R319 100
R318 100
R487 150k
R488 56k
C483 63V0.047
G483 SHORT



32AFX62
36AFX62
POWER/DEF-V-DEF
[SHEET-3/4]

3-B1 ABL_BEND
1-B5 ABL
3-E1 BENDcorrect
1-B6 32V
3-C1 DPC_OUT
1-B3 3-C1 9V1
1-B5 H. OUT
1-B3 2-B6 5V1
1-B4 1-C6 3-C9 2-D6 12V
1-A5 H. VCC
1-B3 2-C6 POWER
1-B4 2-D6 AUDIO_VCC
2-D6 MAIN_+B
27V 3-D8
AFC 1-B5 3-B1
200V 1-A7
HEATER 1-A7
H-DY_2 1-B7 3-B8
H-DY_1 1-B7
137V 1-E6
DGF_OUT 3-C8
R424 1/4W0.27
Q420 2SC3852
Q420A HEAT SINK
C420 16V100u
R425 1/2R3.3k
R426 820
R428 560
Q421 2SC1815-Y
D420 MTZJ7.5A
R427 3.3k
D441 MTZJ9.1B
C492 500V120
R405 1R5.6k
AA11
AA09
AA08
R217 1k
D471 EU2A/ERB44-06E
R472 1R27
C471 4.7
R370 1/2W1.0
R371 10k
R372 2.2k
C370 16V100
Q370 KTA1266Y/2SA1015Y
R373 1k
D421 OPEN
R227 5.6k
R218 10k
D302 EU2A/ERB44-06E
C310 2200 240730955
C303 500V470
R327 2W1.8 243391896
T461 TFB4172AD/AH
D371 1SS133/1SS120-7
D370 MTZJ5.6B/RD5.6ESAB2/HZS5.6NB2
R374 16k
C371 16V10
R478 1/2P33k
D474 MTZJ12B/RD12ESAB2/HZS12NB2
C475 630V0.01
C446 250V33
D406 EU2A/ERB44-06E
JP150 OPEN
C448 200V33u
R408 5W2.7
137V
R101 1R18k
R416 5W5.6k
Q402 2SC2482FA-1
R411 560
R410 270
0.5
12.0
0
R415 1W2.7k
C413 500V8820
C417 500V390
C416 200V1.0
T451 TLN1898AH
111.0
-20.0
-20.0
Q404 2SK2953(FA)
R429 1/2R56
C463 1500
L4041 TEM2011Y
Q404A HEAT SINK
C448 1.8k1000p
C443 1500V8200p
C444 1500V8200p
R463 1M4.7
L461 TLN3339AD
D467 EU2A/ERB44-06E
C464 100V10u 2464A872E
C467 630V M0.047
D444 ERD29-06J
L463 TEM2011
R442 1R15k
D442 EU2A/ERB44-06E
C441 315V0.62u
D404 ERC06-15L
L441 TLN2083D/TLN2083AT
C442 315V0.56u
C491 315V0.82
GJ18 SHORT
GJ17 SHORT
R441 1R1k
L491 TPC1016AH
L442 TLN33630
C423 400V0.068
R445 1/2RF2.2
C447 400V0.047
T7408 TLN2168AH/TLN2220AL
R403
R400 1/2R560
Z401 SG9563EN
FOCUS
SCREEN
GJ403 OPEN
R403 1/2R82k
C445 200V0.047
JP144 SHORT
C453 OPEN
R4410 OPEN
L447 OPEN
R470 1W0.56
R479 1R130
R471 1R300
C472 0.47
Q480 2SA949-Y
R458 1/4W18kF
R489 1/4W18kF
C480 22
D480 MTZJ36A
R490 1k
Q482 2SC1815-Y/2SC1685-Q,TH/2SC1740S,Q
R494 470
R493 1k
C482 0.47
Q481 2SC1815-Y/2SC1685-Q,TH/2SC1740S,Q
R495 560
Q483 RN2201
D431 SHORT
R432 1/2RF56
Q430 2SC4721
R433 4.7k
MD10ESAB1
D430 MTZJ10A/RD10ESAB1/HZS10NB1
F470 125V_2A_23144897
Q472 2SC1815-Y/2SC1685-Q,TH/2SC1740S
C474 16V10u
MC01
R451 1/4W136F
R477 27k
R476 82k
Q471 2SA1015-O
R431 10k
R452 33k
R453 1/4W4.7kF
D473 1SS133/1SS120-7
D472 RD6.2E(4)
R434 2k
R478 470
C471 4.7
C472 0.47
C474 16V10u
C480 22
C482 0.47
C491 315V0.82
C492 500V120
C4410 OPEN
C4411 OPEN
C4412 OPEN
C4413 OPEN
C4414 OPEN
C4415 OPEN
C4416 OPEN
C4417 OPEN
C4418 OPEN
C4419 OPEN
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C4492 OPEN
C4493 OPEN
C4494 OPEN
C4495 OPEN
C4496 OPEN
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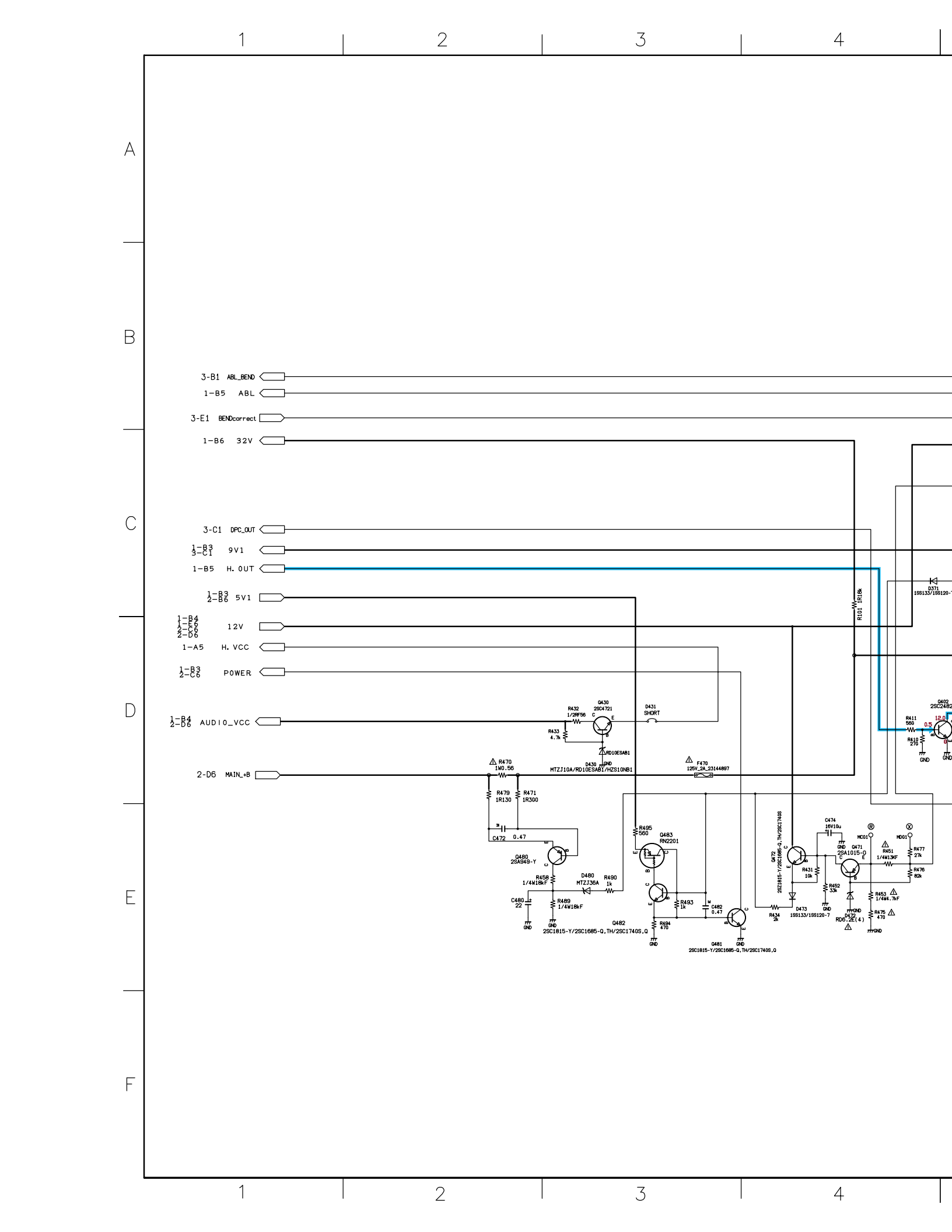
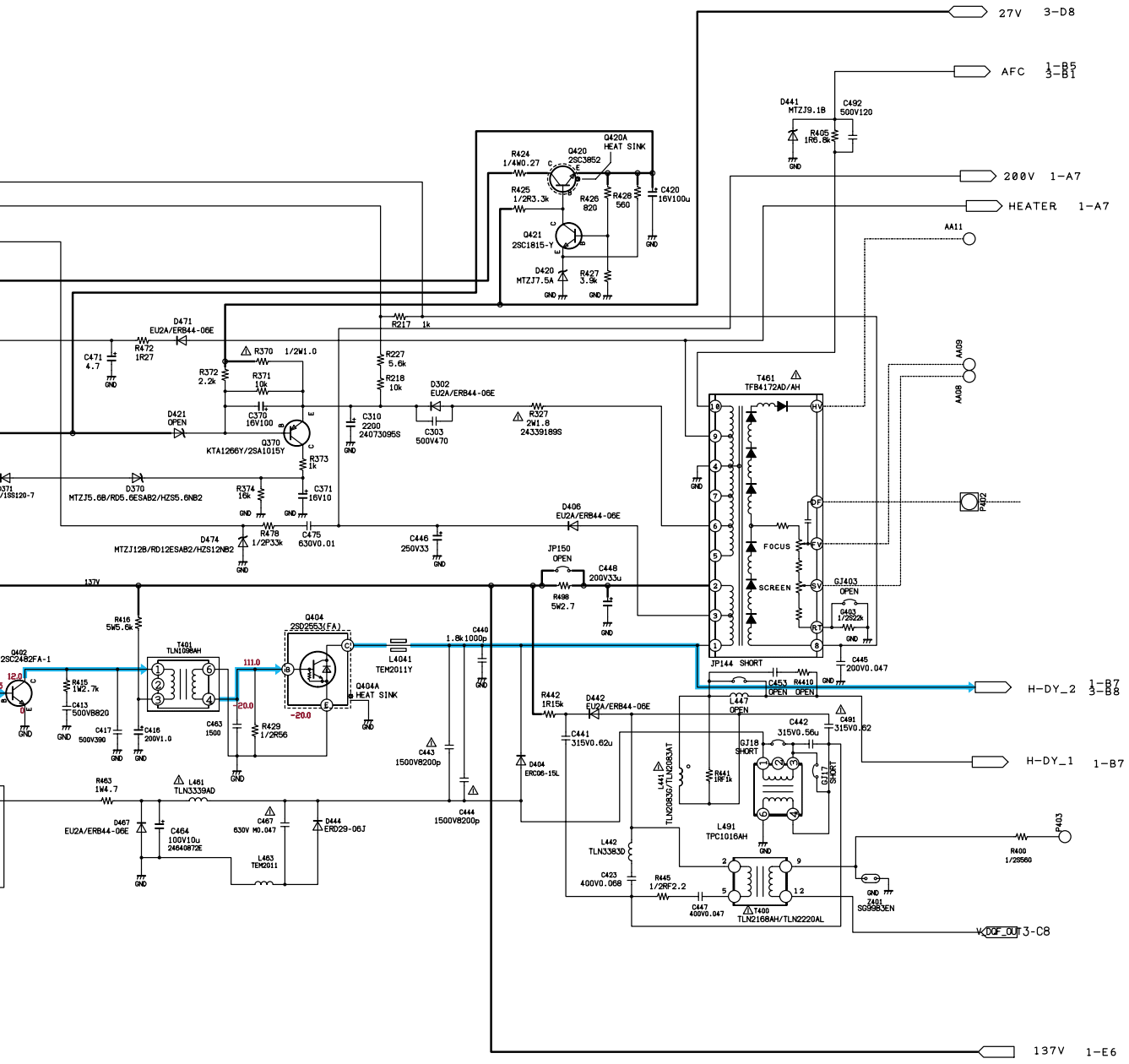
C4499 OPEN
C4500 OPEN

32AFX62
36AFX62
POWER/DEF-H-DEF
[SHEET-4/4]

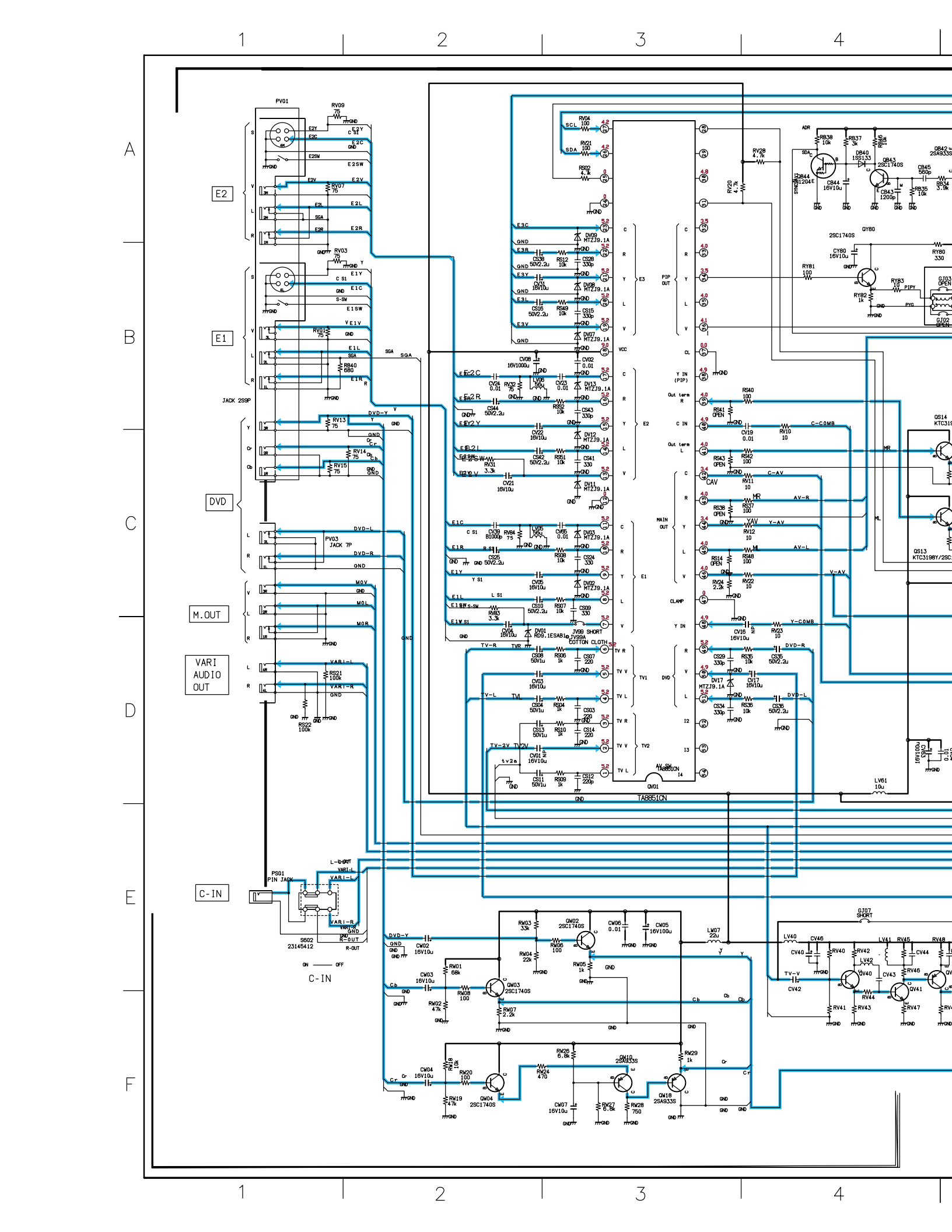

3-B1 ABL_BEND
1-B5 ABL
3-E1 BENDcorrect
1-B6 32V
3-C1 DPC_OUT
1-B3 9V1
3-C1
1-B5 H. OUT
1-B3 5V1
2-B6
1-B4 12V
1-A5 H. VCC
1-B3 POWER
2-C6
1-B4 AUDIO_VCC
2-D6
2-D6 MAIN_+B
R101 1R18k
D471 1SS133/1SS120-7
R411 560
R410 270
Q402 2SC2482
GND
R432 1/2RF56
Q430 2SC4721
D431 SHORT
R433 4.7k
RD10ESAB1
D430 MTZJ10A/RD10ESAB1/HZS10NB1
R470 1W0.56
F470 125V_2A_23144897
R479 1R130
R471 1R300
C472 0.47
Q480 2SA949-Y
R458 1/4W18kF
D480 MTZJ36A
R490 1k
C480 22
R489 1/4W18kF
2SC1815-Y/2SC1685-Q,TH/2SC1740S,Q
R495 560
Q483 RN2201
R493 1k
C482 0.47
R494 470
Q482
Q481 2SC1815-Y/2SC1685-Q,TH/2SC1740S,Q
Q472 2SC1815-Y/2SC1685-Q,TH/2SC1740S
C474 16V10u
MC01
MD01
Q471 2SA1015-O
R451 1/4W13KF
R477 27k
R476 82k
R431 10k
R452 33k
R453 1/4W4.7kF
D473 1SS133/1SS120-7
D472 RD6.2E(4)
R434 2k
R475 470

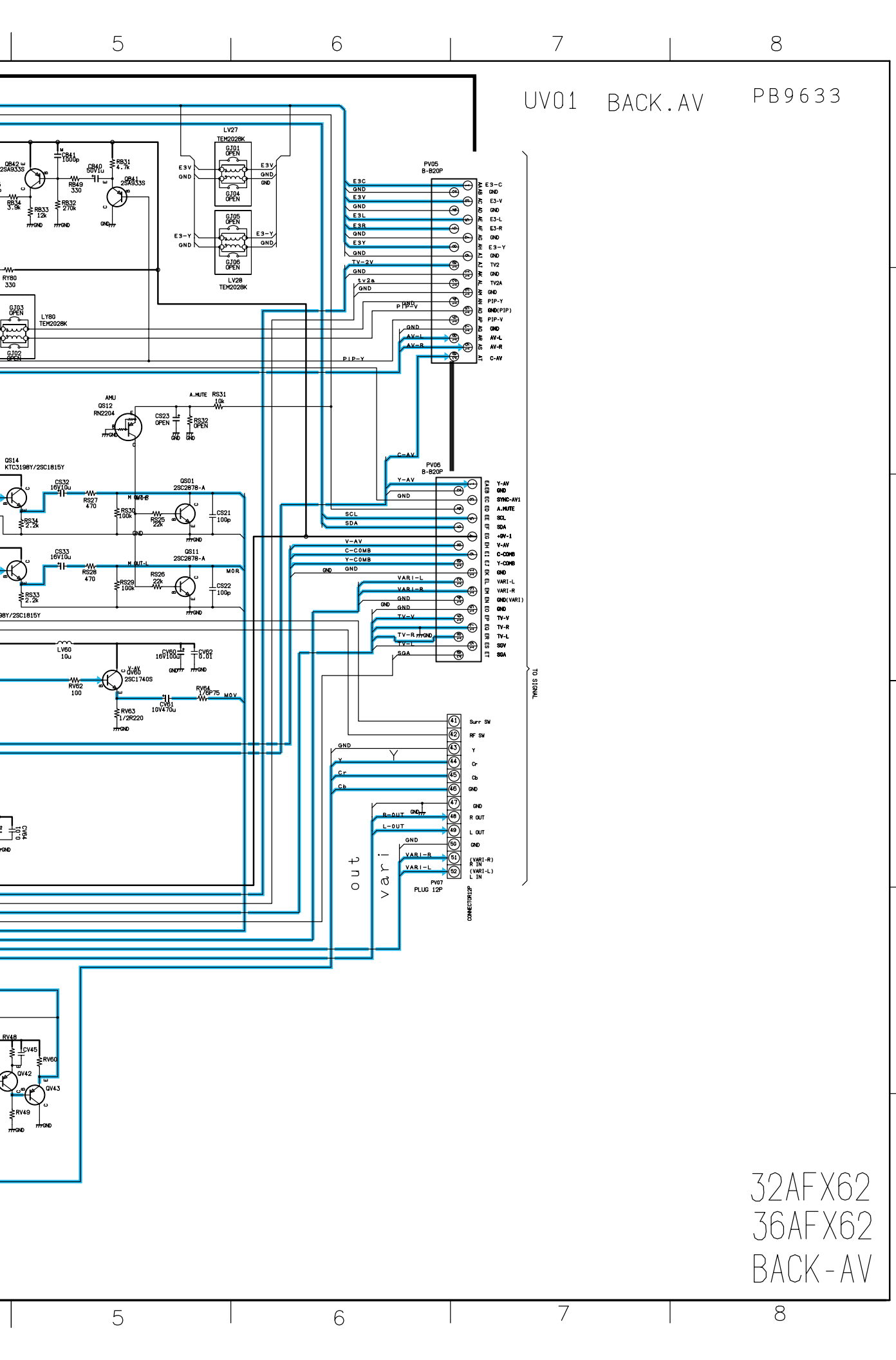


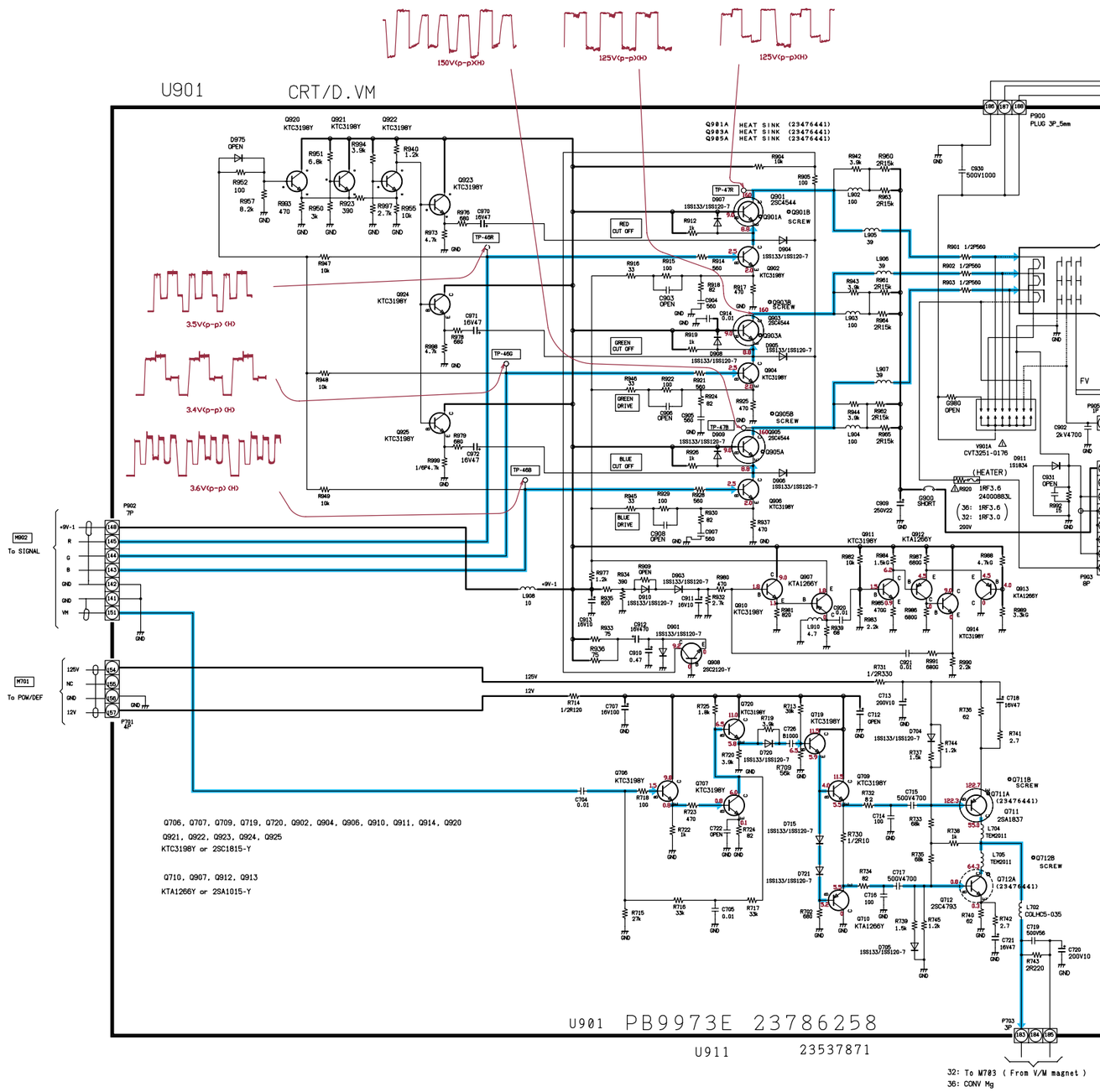
32AFX62
36AFX62
POWER/DEF-H-DEF
[SHEET-4/4]

UV01 BACK.AV PB9633

E2
E1
DVD
M.OUT
VARI AUDIO OUT
C-IN
JACK 2SGP
PV01
PV03 JACK 7P
PS01 PIN JACK
S602 23145412
ON — OFF
C-IN
TA8851CN
QV01
PV05 B-B20P
PV06 B-B20P
PV07 PLUG 12P
CONNECTOR12P
TO SIGNAL
out
vari
32AFX62
36AFX62
BACK-AV


E2
E1
DVD
M.OUT
VARI AUDIO OUT
C-IN
JACK 2S9P
PS01 PIN JACK
S602 23145412
C-IN
TA8851CN
JACK 7P
COTTON CLOTH
SHORT
2SC1740S
2SA933S
1SS133
DVD-Y
DVD-L
DVD-R
M.OUT
VARI-L
VARI-R
R-OUT
C-COMB
C-AV
AV-R
AV-L
Y-AV
Y-COMB
V-AV
PIP OUT
MAIN OUT
Y IN (PIP)
C IN
CAV
CLAMP
SCL
SDA
ADR
SYNC
SGA
E2Y
E2C
E2SW
E2L
E2R
E1Y
E1C
S-SW
E1SW
E1L
E1R
E3C
E3R
E3Y
E3L
E3V
TV-R
TV-L
TV-2V
TV-V
AV-SW
VCC
GND

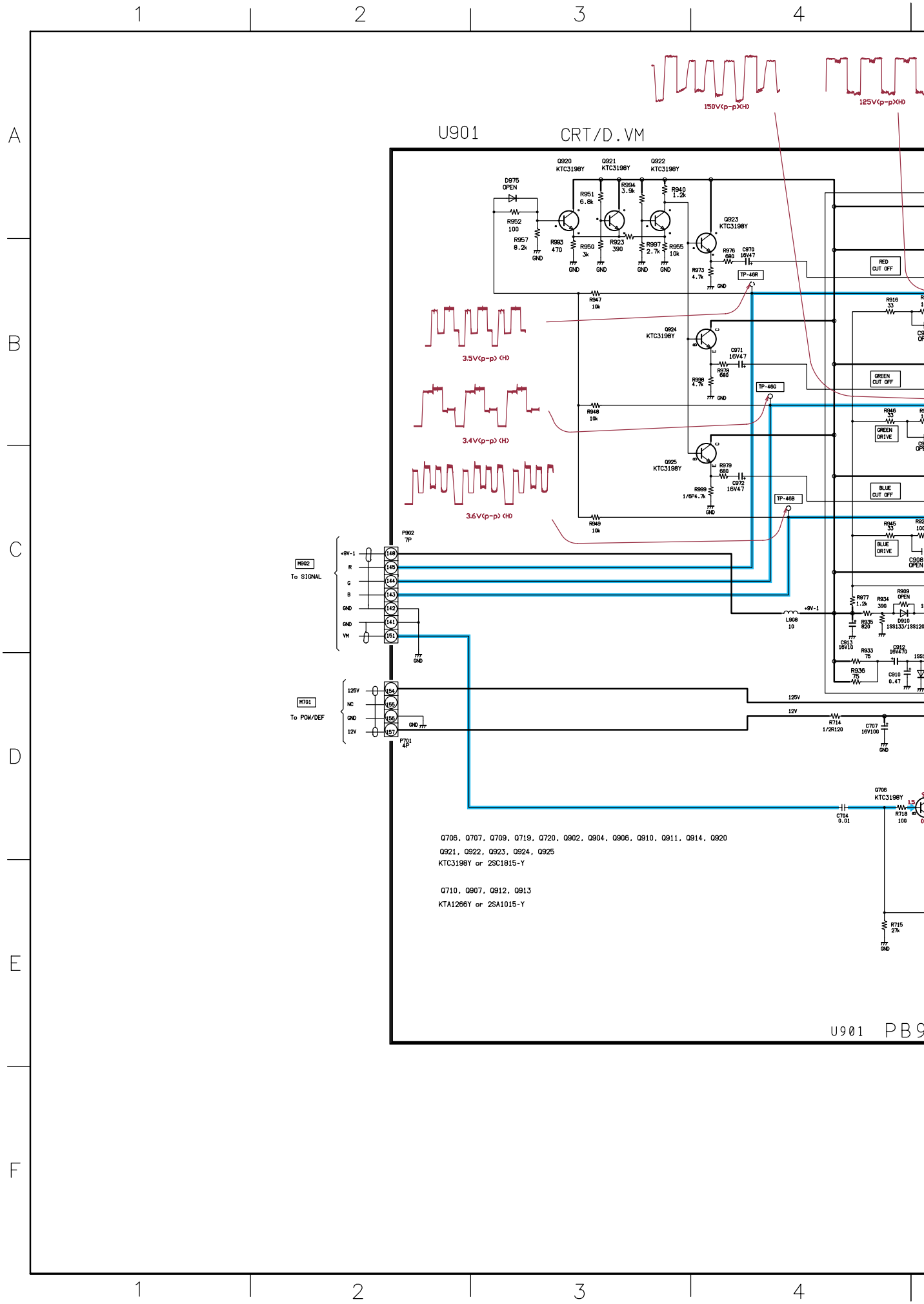

UV01 BACK.AV PB9633
LV27 TEM2028K
LV28 TEM2028K
LY80 TEM2028K
PV05 B-B20P
PV06 B-B20P
PV07 PLUG 12P
CONNECTOR12P
TO SIGNAL
AMU
QS12 RN2204
QS14 KTC3198Y/2SC1815Y
QS01 2SC2878-A
QS11 2SC2878-A
QV60 2SC1740S
QV42
QV43
A.MUTE
E3-C
E3-V
E3-L
E3-R
E3-Y
TV2
TV2A
PIP-Y
GND(PIP)
PIP-V
AV-L
AV-R
C-AV
Y-AV
SYNC-AV1
SCL
SDA
+9V-1
V-AV
C-COMB
Y-COMB
VARI-L
VARI-R
GND(VARI)
TV-V
TV-R
TV-L
SGV
SGA
Surr SW
RF SW
Y
Cr
Cb
R OUT
L OUT
(VARI-R) R IN
(VARI-L) L IN
out vari
32AFX62
36AFX62
BACK-AV

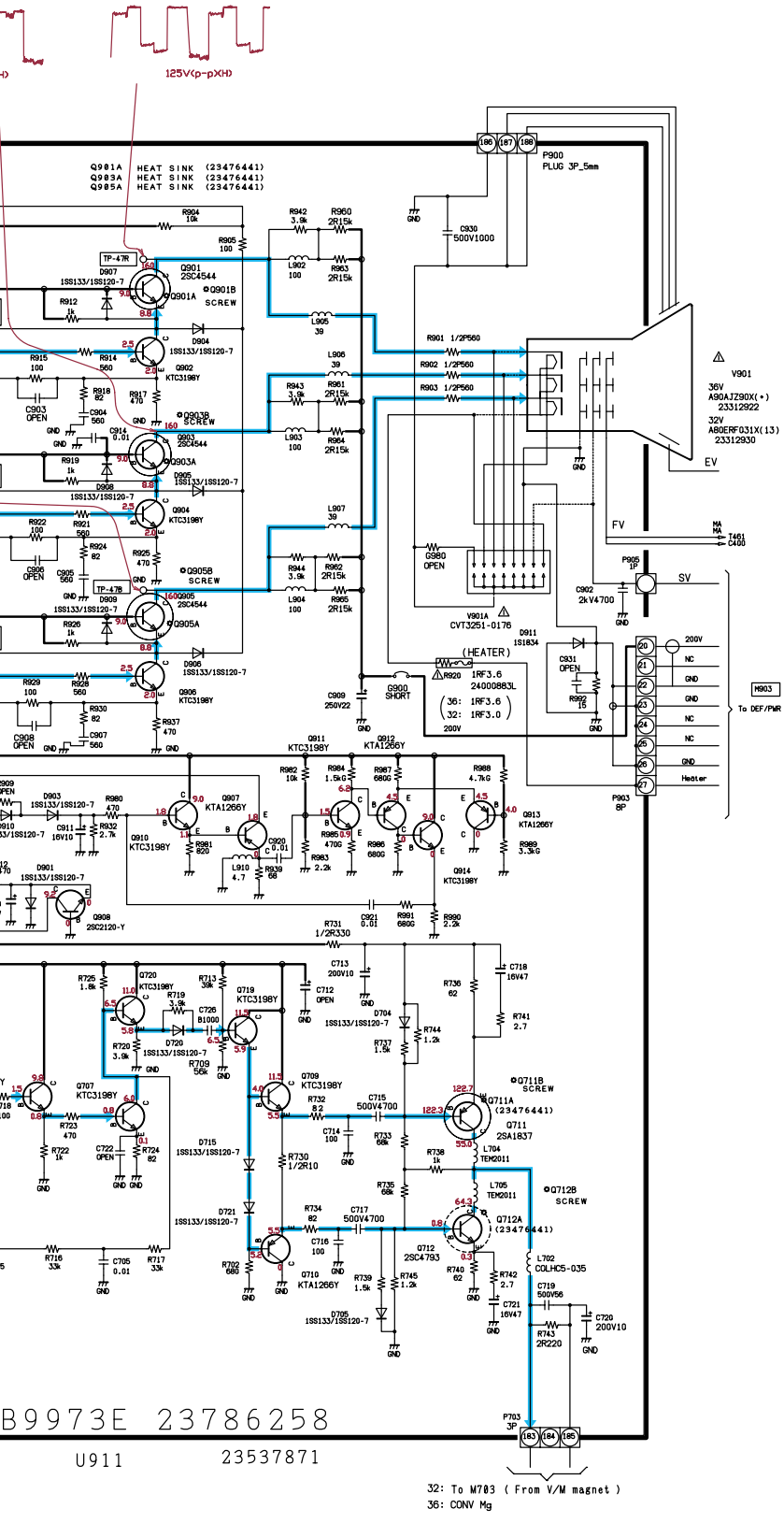


36: PB9973E
32: PB9973G

36: PB9973E 23785923
32: PB9973G 23786691

36AFX62
32AFX62
CRT-D VM


U901
CRT/D.VM
150V(p-p)(H)
125V(p-p)(H)
3.5V(p-p) (H)
3.4V(p-p) (H)
3.6V(p-p) (H)
Q920 KTC3198Y
Q921 KTC3198Y
Q922 KTC3198Y
Q923 KTC3198Y
Q924 KTC3198Y
Q925 KTC3198Y
D975 OPEN
R951 6.8k
R994 3.9k
R940 1.2k
R952 100
R957 8.2k
R993 470
R950 3k
R923 390
R997 2.7k
R955 10k
R976 680
C970 16V47
R973 4.7k
TP-46R
R947 10k
R916 33
RED CUT OFF
R971 4.7k
C971 16V47
R978 680
R998 4.7k
TP-46G
R948 10k
R946 33
GREEN CUT OFF
GREEN DRIVE
R979 680
C972 16V47
R999 1/6P4.7k
TP-46B
R949 10k
R945 33
BLUE CUT OFF
BLUE DRIVE
C908 OPEN
P902 7P
M902 To SIGNAL
+9V-1
R
G
B
GND
VM
M701 To POW/DEF
125V
NC
12V
P701 4P
R977 1.2k
R934 390
R909 OPEN
D910 1SS133/1SS120
R935 820
C913 16V10
R933 75
C912 16V470
R936 75
C910 0.47
L908 10
R714 1/2R120
C707 16V100
Q706 KTC3198Y
C704 0.01
R718 100
R715 27k
Q706, Q707, Q709, Q719, Q720, Q902, Q904, Q906, Q910, Q911, Q914, Q920
Q921, Q922, Q923, Q924, Q925
KTC3198Y or 2SC1815-Y
Q710, Q907, Q912, Q913
KTA1266Y or 2SA1015-Y
U901 PB9

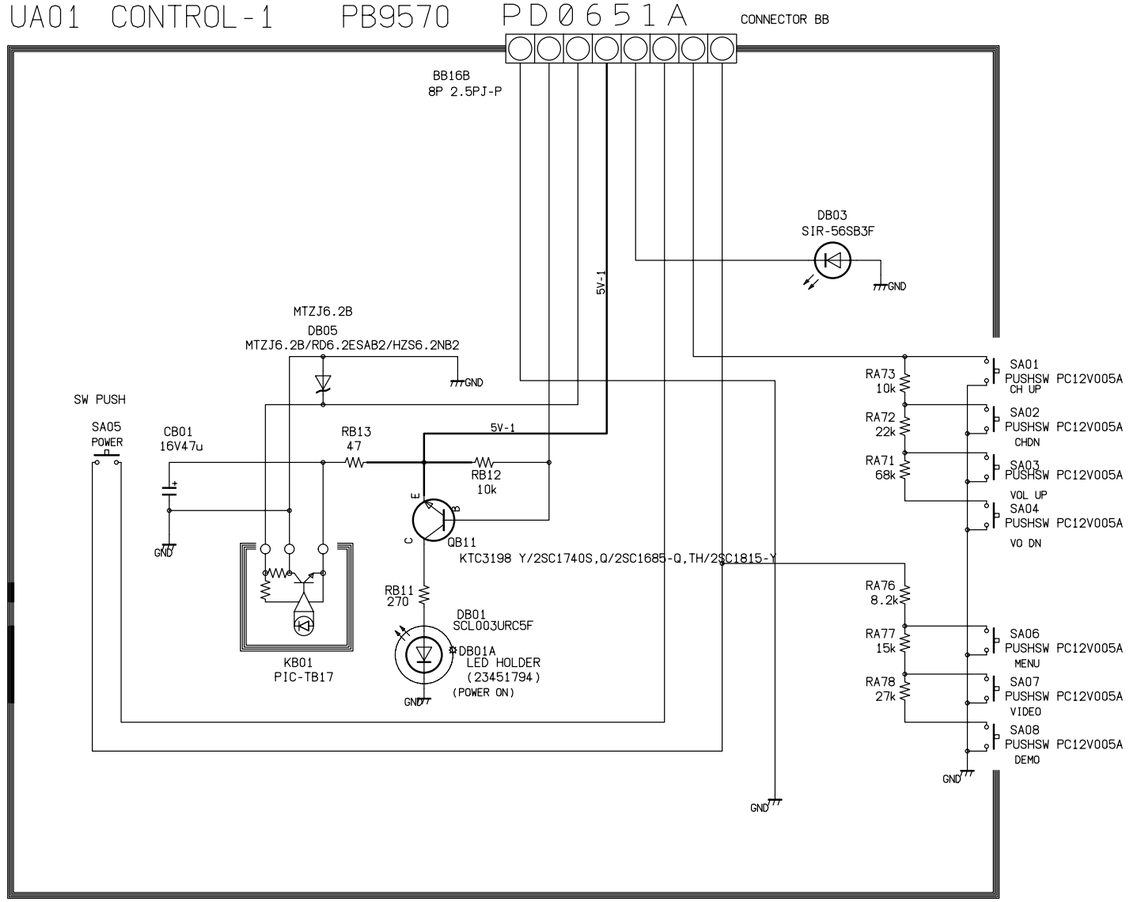


36: PB9973E
32: PB9973G

36: PB9973E 23785923
32: PB9973G 23786691

36AFX62
32AFX62
CRT-D VM

UA01 CONTROL-1 PB9570 PD0651A



36V PB9570

32V PB9699

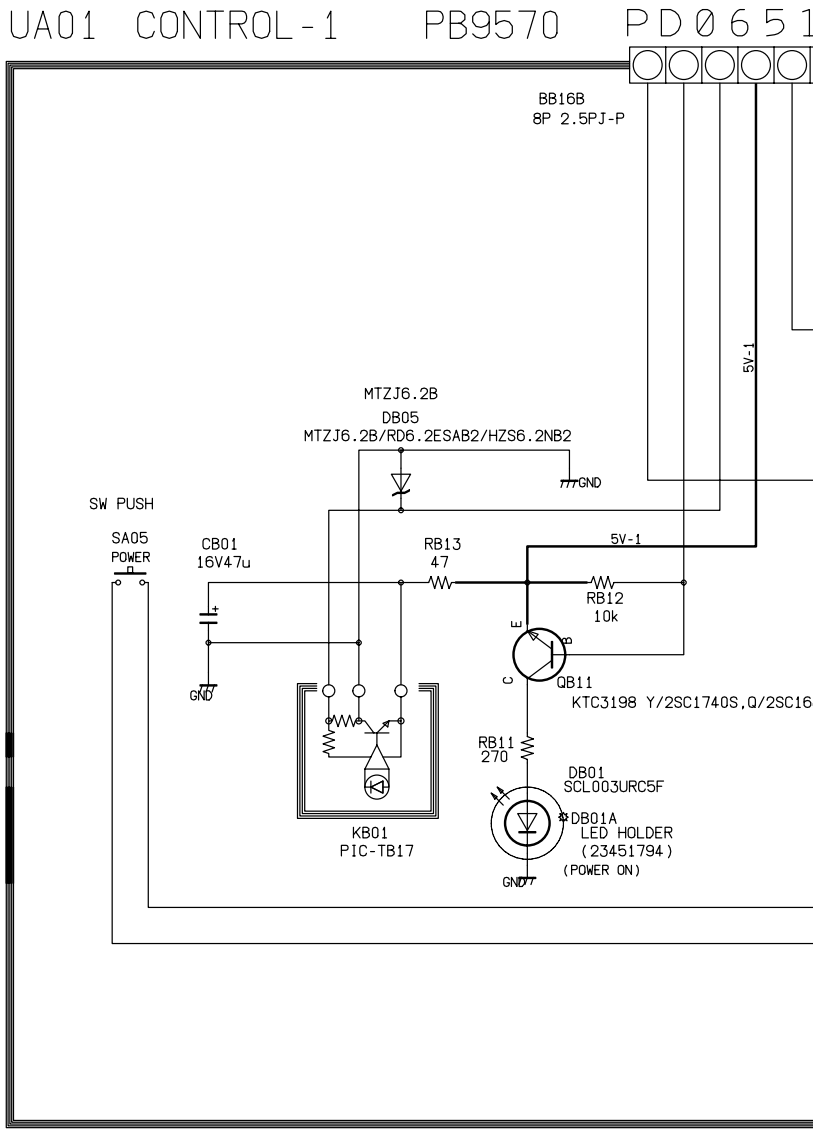
PD0651A

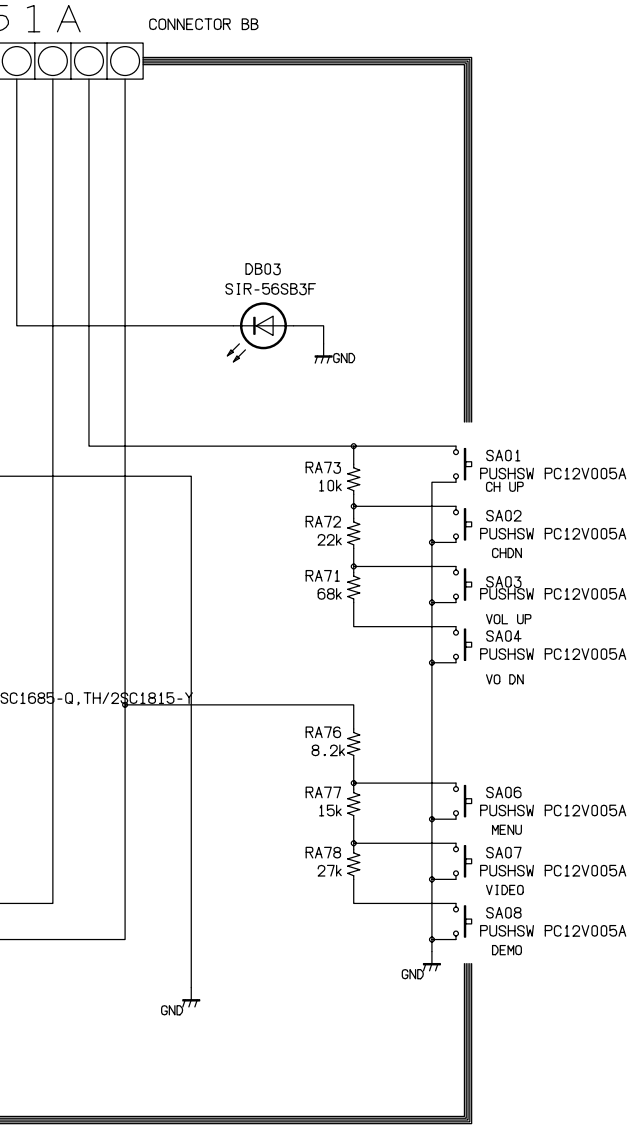
36AFX62/32AFX62

CONTROL-1

A

B


UA01 CONTROL-1 PB9570 PD0651
BB16B
8P 2.5PJ-P
5V-1
MTZJ6.2B
DB05
MTZJ6.2B/RD6.2ESAB2/HZS6.2NB2
GND
SW PUSH
SA05
POWER
CB01
16V47u
RB13
47
5V-1
RB12
10k
QB11
KTC3198 Y/2SC1740S,Q/2SC16
RB11
270
DB01
SCL003URC5F
DB01A
LED HOLDER
(23451794)
(POWER ON)
KB01
PIC-TB17
GND



36V PB9570

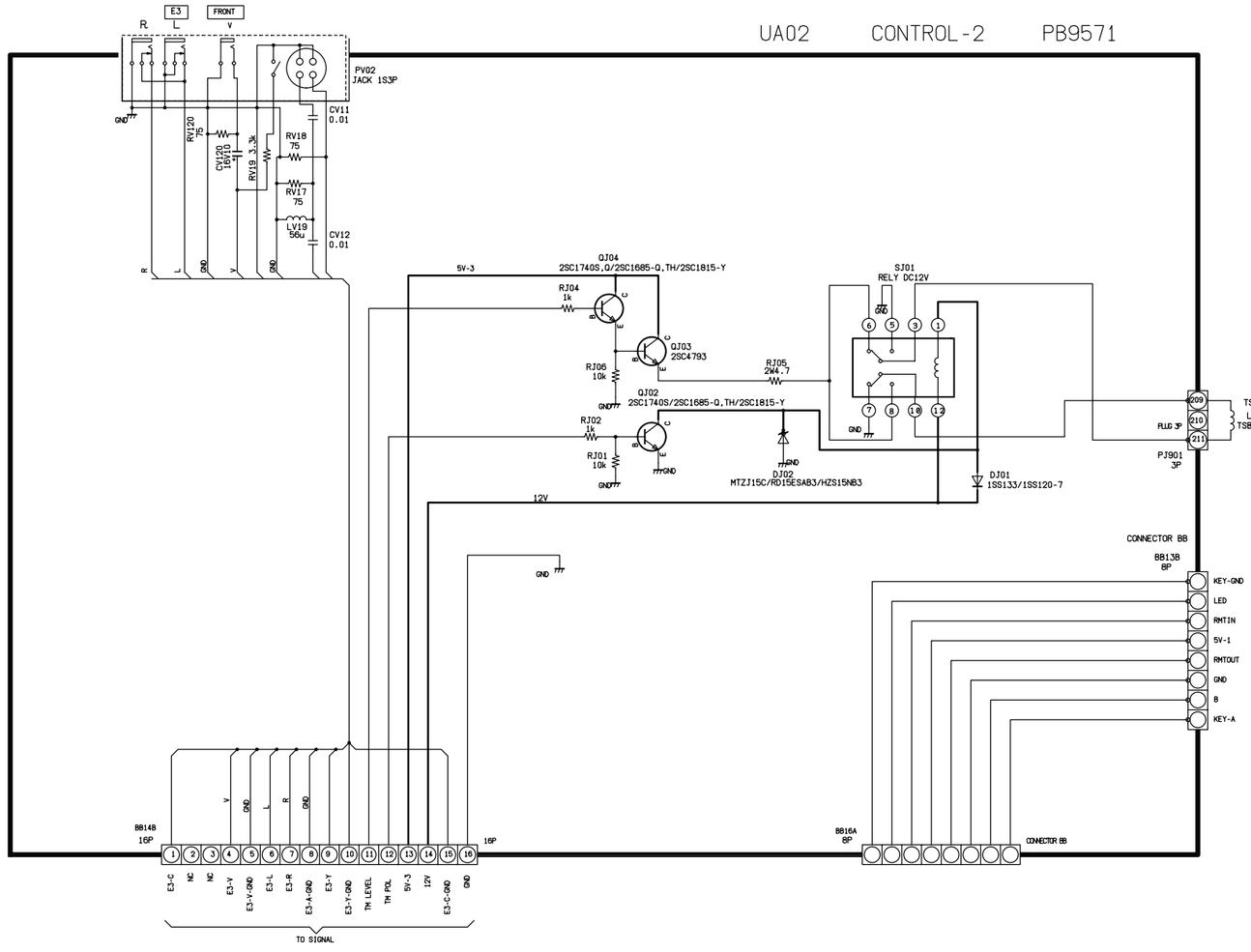
32V PB9699

PD0651A

36AFX62/32AFX62

CONTROL-1

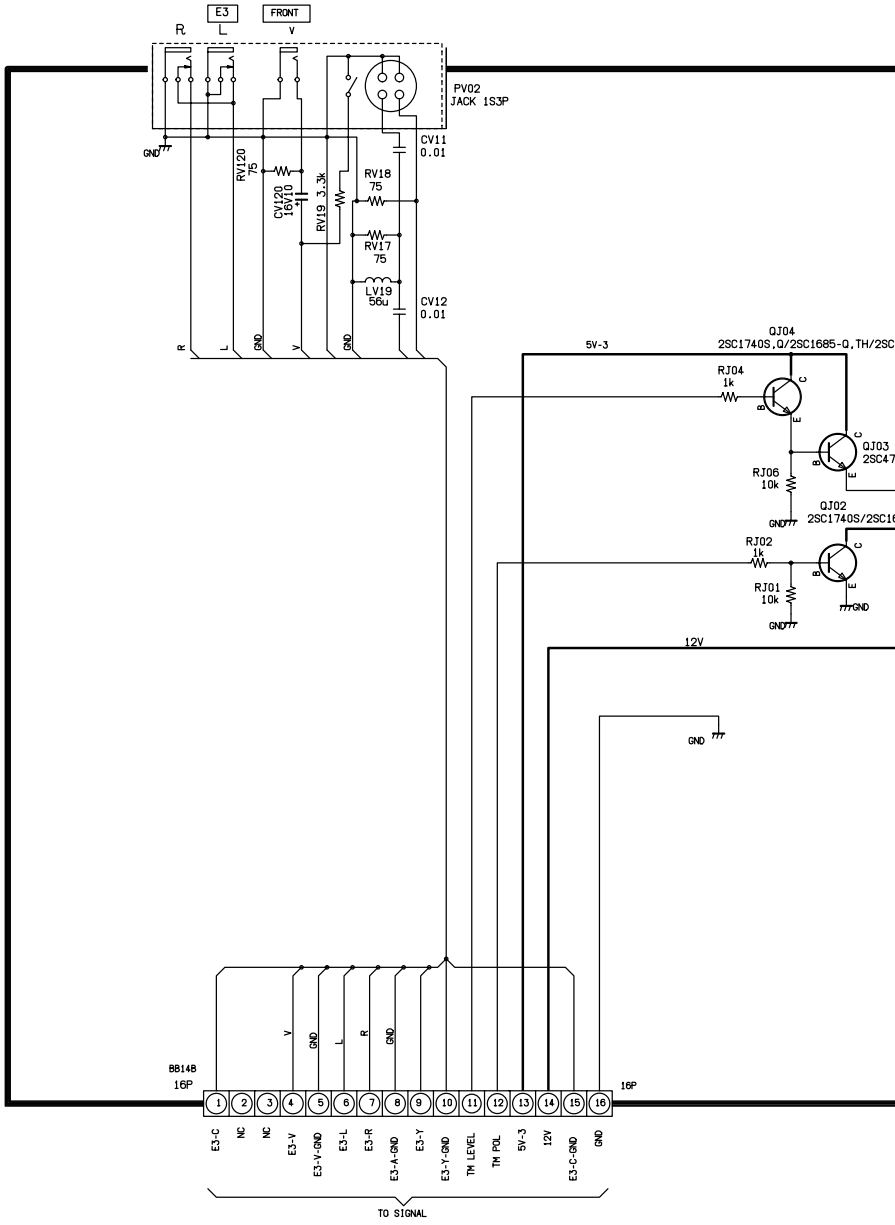
UA02 CONTROL-2 PB9571



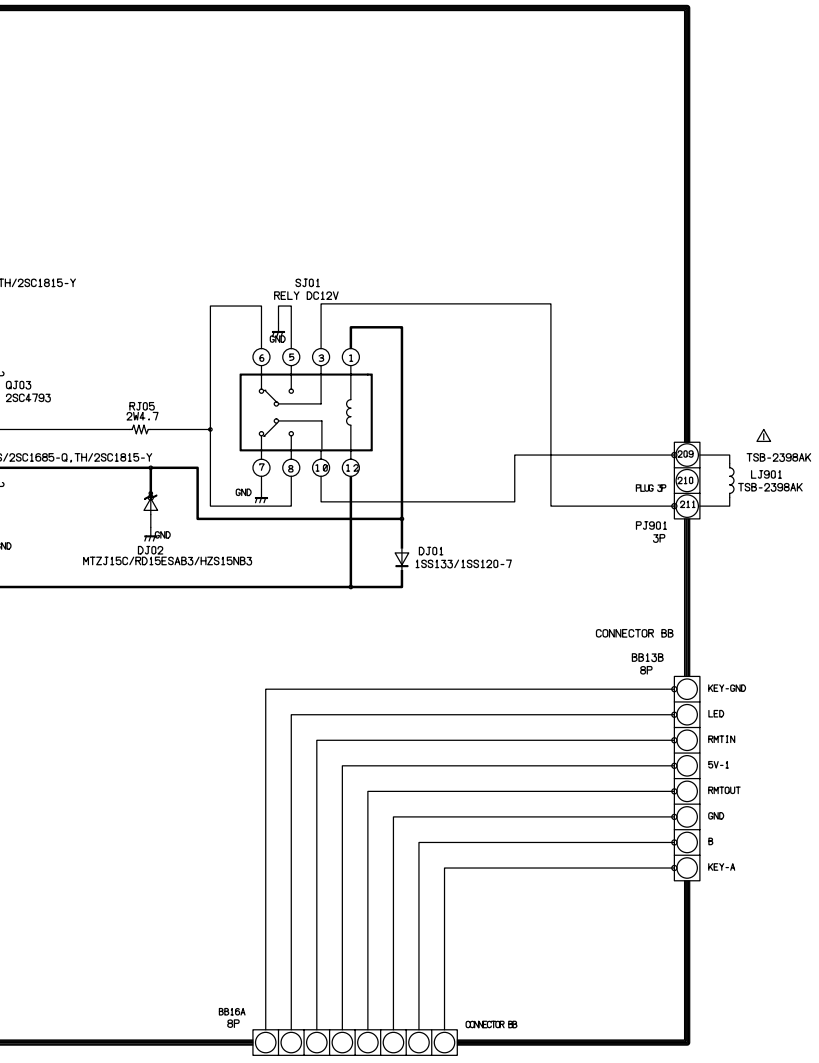
36V PD0652A PB9571

32V PD0652A PB9700

36AFX62/32AFX62
CONTROL-2


E3
FRONT
R
L
V
PV02
JACK 1S3P
GND
CV11
0.01
RV120
75
CV120
16V10
RV19 3.3k
RV18
75
RV17
75
LV19
56u
CV12
0.01
R
L
GND
V
GND
5V-3
QJ04
2SC1740S,Q/2SC1685-Q,TH/2SC
RJ04
1k
QJ03
2SC47
RJ06
10k
GND
QJ02
2SC1740S/2SC16
RJ02
1k
RJ01
10k
GND
GND
12V
GND
BB14B
16P
16P
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
E3-C
NC
NC
E3-V
E3-V-GND
E3-L
E3-R
E3-A-GND
E3-Y
E3-Y-GND
TM LEVEL
TM POL
5V-3
12V
E3-C-GND
GND
TO SIGNAL

UA02 CONTROL-2 PB9571



36V PD0652A PB9571

32V PD0652A PB9700

36AFX62/32AFX62
CONTROL-2